

=> fil'MEDLINE, HCAPLUS, BIOSIS, EMBASE, WPIDS, SCISEARCH, AGRICOLA  
FILE 'MEDLINE' ENTERED AT 10:58:25 ON 16 FEB 2005

FILE 'HCAPLUS' ENTERED AT 10:58:25 ON 16 FEB 2005  
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.  
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.  
COPYRIGHT (C) 2005 AMERICAN CHEMICAL SOCIETY (ACS)

FILE 'BIOSIS' ENTERED AT 10:58:25 ON 16 FEB 2005  
Copyright (c) 2005 The Thomson Corporation.

FILE 'EMBASE' ENTERED AT 10:58:25 ON 16 FEB 2005  
COPYRIGHT (C) 2005 Elsevier Inc. All rights reserved.

FILE 'WPIDS' ENTERED AT 10:58:25 ON 16 FEB 2005  
COPYRIGHT (C) 2005 THE THOMSON CORPORATION

FILE 'SCISEARCH' ENTERED AT 10:58:25 ON 16 FEB 2005  
Copyright (c) 2005 The Thomson Corporation.

FILE 'AGRICOLA' ENTERED AT 10:58:25 ON 16 FEB 2005

=> d his

(FILE 'HOME' ENTERED AT 08:34:56 ON 16 FEB 2005)

FILE 'MEDLINE, HCAPLUS, BIOSIS, EMBASE, WPIDS, SCISEARCH, AGRICOLA'  
ENTERED AT 08:35:41 ON 16 FEB 2005

L1 39 S MUSTACCHI C?/AU  
L2 451 S ARCANGELI A?/AU  
L3 1 S MATTURRO G?/AU  
L4 277 S DANESI P?/AU  
L5 6 S FESTUCCIA A?/AU  
L6 769 S L1-L5  
L7 2 S L6 AND TANNIN?  
L8 3797 S TANNIN?(5A)EXTRACT?  
L9 5201 S PERCOLAT?(5A)(WATER OR STEAM?)  
L10 5 S L8 AND L9  
L11 634 S L8 (L)(WATER OR STEAM?)  
L12 18 S L8 AND PERCOLAT? AND (WATER OR STEAM?)  
L13 17 S L12 NOT OLIVE?  
L14 1742 S CONCENTRAT?(5A)TANNIN?  
L15 2 S L14 AND SPIRAL(5A)WOUND?  
L16 2 S L14 AND SPIRAL?(5A)MEMBRAN?  
L17 11 S L11 AND MEMBRAN?  
L18 66 S L14 AND (FILTR? OR FILTER? OR ULTRAFILT? OR NANOFILT?)  
L19 5 S L18 AND POLYAMID?  
L20 3 S L18 AND (POLYSULFON? OR POLYSULPHON? OR POLYETHEROSULFON? OR  
L21 7 S L14 AND POLYAMID?  
L22 3 S L14 AND (POLYSULFON? OR POLYSULPHON? OR POLYETHEROSULFON? OR  
L23 264963 S (WOOD OR PLANT? OR LEAVE# OR FRUIT# OR BARK OR ROOT# OR TREE#  
L24 157113 S (WOOD OR PLANT? OR LEAVE# OR FRUIT# OR BARK OR ROOT# OR TREE#  
L25 40777 S L23(L)(WATER OR STEAM?)  
L26 16813 S L24 (L)(WATER OR STEAM?)  
L27 5 S L25 AND SPIRAL?(5A)WOUND?  
L28 3 S L25 AND SPIRAL?(5A)MEMBRAN?  
L29 16399 S SPIRAL?(L)WOUND?  
L30 115 S L29 AND (POLYSULFON? OR POLYSULPHON? OR POLYETHEROSULFON? OR  
L31 56 S L30 AND (AQUEOUS OR WATER OR STEAM)

L32 1 S L31 AND DEACIDIFIC?  
 L33 68 S POLYPHENOL? AND SPIRAL?  
 L34 2 S L33 AND (POLYSULFON? OR POLYSULPHON? OR POLYETHEROSULFON? OR  
 L35 9 S POLYPHENOL? AND SPIRAL?(5A)WOUND?  
 L36 1 S L35 AND VEGETABLE?(5A)TANNIN?  
 L37 9 S POLYPHENOL? AND SPIRAL?(L)WOUND?  
 L38 11 S TANNIN? AND SPIRAL?(L)WOUND?  
 L39 6 S L38 AND TANNING  
 L40 5 S L39 AND SAV?  
 L41 2 DUP REM L40 (3 DUPLICATES REMOVED)  
 L42 4607 S TANNIN? AND (FILTER? OR FILTR? OR ULTRAFILT? OR NANOFILT?)  
 L43 312 S L42 AND MEMBRAN?  
 L44 43 S L43 AND (?SULFON? OR ?SULPHON?)  
 L45 3 S L44 AND (SPIRAL? OR WOUND?)  
 L46 1 S L45 AND FRUIT  
 L47 6236 S (FRUIT? OR JUICE? OR WINE?) AND TANNIN?  
 L48 14 S L47 AND (POLYSULFON? OR POLYSULPHON? OR POLYETHEROSULFON? OR  
 L49 20 S L47 AND (SPIRAL? OR WOUND)  
 L50 2 S L49 AND STABLE  
 L51 1 S L50 NOT VINYL  
 L52 53 DUP REM L7 L10 L13 L15 L16 L17 L19-L22 L27... (58 DUPLI

FILE 'MEDLINE, HCAPLUS, BIOSIS, EMBASE, WPIDS, SCISEARCH, AGRICOLA'  
 ENTERED AT 10:58:25 ON 16 FEB 2005

=> d 152 1-53 ibib ed abs

L52 ANSWER 1 OF 53 HCAPLUS COPYRIGHT 2005 ACS on STN DUPLICATE 1  
 ACCESSION NUMBER: 2004:681166 HCAPLUS  
 DOCUMENT NUMBER: 141:189999  
 TITLE: Devices, tests and multilayered test strip method for  
 the analysis of **wine** samples  
 INVENTOR(S): Miller, Michael M.  
 PATENT ASSIGNEE(S): USA  
 SOURCE: U.S. Pat. Appl. Publ., 8 pp., Cont.-in-part of U.S.  
 Ser. No. 695,688, abandoned.  
 CODEN: USXXCO  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 2  
 PATENT INFORMATION:

*W. Subject matter*

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2004161366	A1	20040819	US 2004-775691	20040210
PRIORITY APPLN. INFO.:			US 2000-695688	B2 20001025

*NPA*

ED Entered STN: 20 Aug 2004

AB The present invention provides a method for analyzing **wine**  
 samples using a multi-layered test strip. The test strip is part of a kit  
 that includes a plurality of the strips, a plurality of samplers, and a  
 plurality color charts and written explanations of the test results which  
 test kit components produce values for the determination of malic acid, lactic  
 acid, residual yeast-fermentable sugar, and pH.

L52 ANSWER 2 OF 53 SCISEARCH COPYRIGHT (c) 2005 The Thomson Corporation. on  
 STN DUPLICATE 2

ACCESSION NUMBER: 2004:137114 SCISEARCH  
 THE GENUINE ARTICLE: 769JR  
 TITLE: Long-term performance of an industrial water desalination

plant  
 AUTHOR: Al-Bastaki N (Reprint); Abbas A  
 CORPORATE SOURCE: Univ Bahrain, Coll Engn, Dept Chem Engn, POB 32038,  
 Manama, Bahrain (Reprint); Univ Bahrain, Coll Engn, Dept  
 Chem Engn, Manama, Bahrain  
 COUNTRY OF AUTHOR: Bahrain  
 SOURCE: CHEMICAL ENGINEERING AND PROCESSING, (APR 2004) Vol. 43,  
 No. 4, pp. 555-558.  
 Publisher: ELSEVIER SCIENCE SA, PO BOX 564, 1001 LAUSANNE,  
 SWITZERLAND.  
 ISSN: 0255-2701.  
 DOCUMENT TYPE: Article; Journal  
 LANGUAGE: English  
 REFERENCE COUNT: 7

\*ABSTRACT IS AVAILABLE IN THE ALL AND IALL FORMATS\*

AB The long-term performance of a medium-scale industrial **spiral**  
**wound** reverse osmosis (RO) **water** desalination  
**plant** was studied. Operational data were analysed for a period of  
 1500 days as a basis for evaluating the performance variation with time. A  
 theoretical model based on the solution-diffusion mass-transfer theory and  
 concentration polarization was employed to **extract** the  
**water** and salt permeability coefficients. The results indicate  
 that after over 4 years of continuous operation, the **water**  
 permeability coefficient declined by about 39% and the average salt  
 permeability coefficient increased by about 60%. Periodic membrane  
 cleaning schemes were effective in partially restoring the **water**  
 and salt permeabilities. (C) 2003 Published by Elsevier B.V.

L52 ANSWER 3 OF 53 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation. on  
 STN DUPLICATE 3

ACCESSION NUMBER: 2004:381672 BIOSIS  
 DOCUMENT NUMBER: PREV200400375758  
 TITLE: Recovery and recycle of tannins in the leather industry by  
**nanofiltration** membranes.  
 AUTHOR(S): Molinari, R. [Reprint Author]; Buonomenna, M. G.; Cassano,  
 A.; Drioli, E.  
 CORPORATE SOURCE: Dept Chem and Mat Engn, Univ Calabria, Via P Bucci 45A,  
 I-87030, Rende, Italy  
 r.molinari@unical.it  
 SOURCE: Journal of Chemical Technology and Biotechnology, (April  
 2004) Vol. 79, No. 4, pp. 361-368. print.  
 ISSN: 0268-2575 (ISSN print).  
 DOCUMENT TYPE: Article  
 LANGUAGE: English  
 ENTRY DATE: Entered STN: 22 Sep 2004  
 Last Updated on STN: 22 Sep 2004

ED Entered STN: 22 Sep 2004

Last Updated on STN: 22 Sep 2004

AB The aim of this work was the study of the application of membrane  
**concentration** to exhausted **tanning** baths from vegetable  
 tannage operations in order to increase the tannin/non-tannin (T/NT) ratio  
 and obtain recyclable material. For this purpose four samples of tanning  
 baths at different T/NT ratios (from 0.7 to 1.4) were processed using six  
 different types of membranes which ranged from reverse osmosis (RO) to  
**nanofiltration** (NF). The membrane module Fluid Systems TFC S 2540  
 gave the best results in terms of permeate flux and also in terms of  
 increased T/NT ratio in the retentate (from 1.4 to 1.7). In order to  
 compare the permeate flux reduction with time (Jt) for the different  
 modules, the osmotic pressure differences (DELTA<sub>pi</sub>) between permeate and

retentate were estimated by electrical conductivity measures. The fouling phenomena for the different membranes in the processing of each sample were evaluated by comparing the pressures required to obtain the same VRF (volume reduction factor), NPF (normalized permeate flux) and membrane performances with tap water before and after **tannin concentration**. The retention of tannins, which are polyphenols capable of significant hydrogen bonding, was found to be governed by the chemistry of the interactions between their complexes and the **polyamide** membrane material. Copyright 2004 Society of Chemical Industry.

*YAP*

L52 ANSWER 4 OF 53 HCAPLUS COPYRIGHT 2005 ACS on STN DUPLICATE 4  
 ACCESSION NUMBER: 2003:617039 HCAPLUS  
 DOCUMENT NUMBER: 139:150843  
 TITLE: Fiber-reinforcement plastic pipe with enhanced mechanical strength  
 INVENTOR(S): Takeuchi, Takashi; Gunji, Shigeru; Arakawa, Takashi; Okawa, Taichi; Aoyagi, Shigeaki; Tadokoro, Hiroyuki; Watanabe, Nobuyuki; Araki, Satoru; Takeda, Toshikazu; Imamura, Shinji  
 PATENT ASSIGNEE(S): Nippon Steel Corp., Japan; Hitachi Metals, Ltd.; Nittetsu Composite K. K.  
 SOURCE: Jpn. Kokai Tokkyo Koho, 8 pp.  
 CODEN: JKXXAF  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2003225951	A2	20030812	JP 2002-27418	20020204
PRIORITY APPLN. INFO.:			JP 2002-27418	20020204

*NPAH*

ED Entered STN: 12 Aug 2003

AB The plastic pipe, useful as an alternative to metal water pipes, gas pipes, etc., is that reinforced by  $\geq 1$  layers on the outside surface. A tape or sheet made of fibers impregnated with a resin, which is wound round the outside surface of the pipe, makes the reinforcing layer. The tape or sheet is **spirally wound** at  $50^\circ < \alpha < 85^\circ$  ( $\alpha$  = spiral angle) tightly or at a pitch. Preferably, the pipe is made of polyethylene, polypropylene, PVC, or **polyphenol** reinforced with carbon fibers, glass fibers, or organic fibers.

L52 ANSWER 5 OF 53 HCAPLUS COPYRIGHT 2005 ACS on STN DUPLICATE 5  
 ACCESSION NUMBER: 2003:323458 HCAPLUS  
 DOCUMENT NUMBER: 139:154051  
 TITLE: Membrane treatment by nanofiltration of exhausted vegetable tannin liquors from the leather industry  
 AUTHOR(S): Cassano, A.; Adzet, J.; Molinari, R.; Buonomenna, M. G.; Roig, J.; Drioli, E.  
 CORPORATE SOURCE: Institute on Membrane Technology, ITM-CNR, c/o University of Calabria, Rende (CS), I-87030, Italy  
 SOURCE: Water Research (2003), 37(10), 2426-2434  
 CODEN: WATRAG; ISSN: 0043-1354  
 PUBLISHER: Elsevier Science Ltd.  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 ED Entered STN: 28 Apr 2003

*nanofiltration*

AB A rational use of water in the leather industry is described by applying the criteria of clean technologies via membrane processes. A nanofiltration (NF) process was used to recover tannins and water from exhausted baths and reusing them as tanning agents and washings. Exptl. results in laboratory- and semi-industrial pilot scale plants, operating and fluid-dynamic conditions, and mass balance of the NF process are discussed. Chemical and phys. anal. values measured on skins treated with recovered solns. were very similar to those measured on control skins tanned with standard solns. According to the results, a process scheme is suggested which permits water recovery and increases the tannin:non-tannin (T:NT) ratio in the retentate solution, starting from exhausted tanning baths and using NF membrane purification/concentration. The final volume reduction factor of exhausted baths was 5.25, the T:NT ratio increase was from 1.1 to 2.3, and average permeate flux was 12.5 L/m<sup>2</sup>-h. Advantages are in terms of reduced environmental impact ( $\leq 75\%$  COD reduction of global effluent), simplification of wastewater clean-up processes, decreased disposal costs, and chemical and water savings.

*me  
prior  
art*

REFERENCE COUNT: 19 THERE ARE 19 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L52 ANSWER 6 OF 53 WPIDS COPYRIGHT 2005 THE THOMSON CORP on STN

ACCESSION NUMBER: 2002-490659 [52] WPIDS

DOC. NO. CPI: C2002-139395

TITLE: **Deacidification** of oil involves contacting oil with polar solvent to extract organic acid present in the oil into solvent as extract phase, and feeding extract phase to selectively permeable nanofiltration membrane.

DERWENT CLASS: H02

INVENTOR(S): LIVINGSTON, A G; OSBORNE, C G

PATENT ASSIGNEE(S): (BRPE) BP EXPLORATION OPERATING CO LTD

COUNTRY COUNT: 98

PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
WO 2002050212	A2	20020627	(200252)*	EN	22
RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW MZ					
NL OA PT SD SE SL SZ TR TZ UG ZM ZW					
W: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ DE DK					
DM DZ EC EE ES FI GB GD GE GH GM HR HU ID IN IS JP KE KG KP KR KZ					
LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ OM PH PL PT RO					
RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG US UZ VN YU ZA ZM ZW					
AU 2002016196	A	20020701	(200264)		

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
WO 2002050212	A2	WO 2001-GB5362	20011204
AU 2002016196	A	AU 2002-16196	20011204

FILING DETAILS:

PATENT NO	KIND	PATENT NO
AU 2002016196	A Based on	WO 2002050212

PRIORITY APPLN. INFO: GB 2000-31337 20001221

ED 20020815  
 AN 2002-490659 [52] WPIDS  
 AB WO 200250212 A UPAB: 20021031  
 NOVELTY - Oil (318) is deacidified by contacting it with a polar solvent (320) so that the organic acid present in the oil is extracted into the solvent as an extract phase (322). The extract phase is separated from the treated oil, and then fed to a selectively permeable nanofiltration membrane (324) to obtain a permeate (326) comprising the solvent and a retentate (328) comprising the organic acid.  
 USE - For deacidifying oil, particularly crude oil.  
 ADVANTAGE - The method can effectively deacidify oil while permitting efficient recovery of the polar solvent that is utilized in the process.  
 DESCRIPTION OF DRAWING(S) - The figure shows an apparatus employed in the **deacidification** of oil.  
 Countercurrent extraction column 300  
 Oil stream 318  
 Polar solvent stream 320  
 Extract phase stream 322  
 Selectively permeable nanofiltration membrane 324  
 Permeate stream 326  
 Retentate stream 328  
 Dwg. 3/4

*mo*  
*Subject matter*

L52 ANSWER 7 OF 53 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation. on STN  
 ACCESSION NUMBER: 2003:92638 BIOSIS  
 DOCUMENT NUMBER: PREV200300092638  
 TITLE: Method for making soil conditioner.  
 AUTHOR(S): Lamour, Brent [Inventor, Reprint Author]; Goff, Shawn [Inventor]  
 CORPORATE SOURCE: Poughquag, NY, USA  
 ASSIGNEE: Salem Organic Soils, Inc., Wingdale, NY, USA  
 PATENT INFORMATION: US 6497742 December 24, 2002  
 SOURCE: Official Gazette of the United States Patent and Trademark Office Patents, (Dec 24 2002) Vol. 1265, No. 4.  
<http://www.uspto.gov/web/menu/patdata.html>. e-file.  
 ISSN: 0098-1133 (ISSN print).  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 ENTRY DATE: Entered STN: 12 Feb 2003  
 Last Updated on STN: 12 Feb 2003

*mo*  
*Print out*

ED Entered STN: 12 Feb 2003  
 Last Updated on STN: 12 Feb 2003  
 AB A method of making a landscaping mulch, using as its primary ingredient, spent stable bedding which has its primary ingredient ripe de bois softwood shavings. The result of the method is a mulch, particularly for landscaping applications, having a relatively high pH value, between 6.5 and 7.5, which is also useful for neutralizing the effects of acid rain. The method involves the steps of mixing agricultural manure in the range of 5%-25%, softwood shavings from spent stable bedding in an amount of greater than 60%, and when necessary, to augment carbon-to-nitrogen ratios, other ancillary ingredients in an amount less than 25%; producing a result by the mixing of ingredients, which has a carbon-to-nitrogen range from 100 to 200 parts of carbon to 1 part of nitrogen. Thereafter, the mixed ingredients are used to form piles, which are then over-saturated with **water**. Thereafter, liquid is **percolated** through the mixed ingredients, which liquid is expressed from the bottom of the pile by gravity. Thereafter, the pile is resaturated with the expressed liquid, now rich in tannin liquors, in

*↓*

order to provide a natural coloring agent for the material. Then the **water** flow is halted in order to allow biological activity to generate heat. Heat bakes-in the color and releases more **tannins** for **extraction** when liquid saturation is resumed. The foregoing process, beginning with resaturation, is repeated until the desired color is achieved.

*MW*

L52 ANSWER 8 OF 53 SCISEARCH COPYRIGHT (c) 2005 The Thomson Corporation. on STN

ACCESSION NUMBER: 2002:406062 SCISEARCH

THE GENUINE ARTICLE: 548JT

TITLE: Removal of boron from aqueous solutions by continuous polymer-enhanced ultrafiltration with polyvinyl alcohol

AUTHOR: Dilek C; Ozbelge H O; Bicak N; Yilmaz L (Reprint)

CORPORATE SOURCE: Middle E Tech Univ, Dept Chem Engrn, TR-06531 Ankara, Turkey (Reprint); Istanbul Tech Univ, Dept Chem, TR-80626 Istanbul, Turkey

COUNTRY OF AUTHOR: Turkey

SOURCE: SEPARATION SCIENCE AND TECHNOLOGY, (APR 2002) Vol. 37, No. 6, pp. 1257-1271.

Publisher: MARCEL DEKKER INC, 270 MADISON AVE, NEW YORK, NY 10016 USA.

ISSN: 0149-6395.

DOCUMENT TYPE: Article; Journal

LANGUAGE: English

REFERENCE COUNT: 41

\*ABSTRACT IS AVAILABLE IN THE ALL AND IALL FORMATS\*

AB Boron is a highly contaminating metal due to its toxic effects for plants even at very low concentrations. Continuous polymer-enhanced ultrafiltration (PEUF) was applied for removal of boron from aqueous solutions. The effects of operating parameters on the performance of PEUF were investigated. A commercial polymer, polyvinyl alcohol (PVA) was used as the boron-complexing agent. The methodology consists of two steps: complexing boron with PVA following separation of boron and polymer complexes by ultrafiltration process. The pilot scale system utilized for the PEUF process accommodates a spiral-wound cellulose cartridge with 10,000 Da MWCO. The experimental parameters studied are metal/polymer ratio (loading) (0.01-0.5), pH (7-10), and the polymer characteristics such as molecular weight (M-n) of the polymer and degree of hydrolysis (DoH). The results showed that PEUF could be a successful alternative method for removal of boron. The permeate flux remained constant at around 19 L/m(2) hr throughout the runs and the fluxes were not affected by the operating parameters studied and by the polymer characteristics. When the loading values were decreased, the retention of boron was increased. Also, pH had an important influence as increase in pH resulted in increase in retention of boron. The polymeric M-n of the polymer did not have any influence on the retention of boron while an increase in DoH caused a decrease in retention of boron.

*JW*

*← type of machine*

L52 ANSWER 9 OF 53 WPIDS COPYRIGHT 2005 THE THOMSON CORP on STN DUPLICATE 6

ACCESSION NUMBER: 2001-540266 [60] WPIDS

CROSS REFERENCE: 2002-618101 [66]; 2003-466484 [44]

DOC. NO. CPI: C2001-161219

TITLE: Making a soil conditioner for landscaping applications involves mixing of softwood shavings with agricultural manure.

DERWENT CLASS: C04

INVENTOR(S): GOFF, S; LAMOUR, B

PATENT ASSIGNEE(S): (SALE-N) SALEM ORGANIC SOILS; (SALE-N) SALEM ORGANIC

*MW*

COUNTRY COUNT: SOILS INC  
2  
PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
US 6264715	B1	20010724	(200160)*		6
CA 2334058	A1	20011122	(200207)	EN	

## APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
US 6264715	B1	US 2000-576410	20000522
CA 2334058	A1	CA 2001-2334058	20010202

PRIORITY APPLN. INFO: US 2000-576410 20000522

ED 20011018

AN 2001-540266 [60] WPIDS

CR 2002-618101 [66]; 2003-466484 [44]

AB US 6264715 B UPAB: 20030710

NOVELTY - Making a soil conditioner involves mixing softwood shavings and agricultural manure to form piles of mixed ingredients over-saturated with water and halting the water flow in each cone to generate heat.

DETAILED DESCRIPTION - Making a soil conditioner involves:

(a) mixing softwood shavings and agricultural manure to form a material having a carbon-to-nitrogen ratio in the range of 100 - 200 parts of carbon to one part of nitrogen;

(b) forming piles of the mixed ingredients in the form of truncated cones having cavities at their tops and concentric troughs spaced on the side walls of each cone;

(c) over-saturating the piles with **water** so that liquid **percolates** through the mixed ingredients to be expressed from the bottom of the pile by gravity and to form a pool of liquid, rich in tannin liquors proximate the base of each cone for use in resaturating the cone;

(d) halting the water flow in each cone for enabling the generation of heat in the cone by means of biological activity, the heat baking in the color of the pile; and

(e) the piles releases more **tannins** for **extraction** as the resaturation is resumed. The process of resaturation is repeated until desired dark color is achieved. Each cone has a volume of 1500 - 4000 cubic yards.

USE - For making soil conditioners, for coloring and for converting softwood shavings into mulch for landscaping applications.

ADVANTAGE - A superior mulch and soil conditioner has a natural, permanent dark color without artificial dyes which uses natural, organic ingredients, has an attractive texture, has good moisture retention properties, non-toxic, weed-free, is safe for humans, pets and other living things, qualifies in any organic certification program, increases the uniformity of saturation of liquid within the piles and proper compaction of piles, produces a final pH value which is sweet and is beneficial when used with many types of landscaping plantings and is lower in cost for equipment and ingredients.

Dwg.0/3

L52 ANSWER 10 OF 53 WPIDS COPYRIGHT 2005 THE THOMSON CORP on STN  
ACCESSION NUMBER: 2001-246855 [26] WPIDS  
DOC. NO. CPI: C2001-074385



TITLE: Use of aqueous solutions of lipoaminoacids in production of paper articles, especially these used in direct contact with skin and mucous membranes, such as paper tissues, paper towels and wipes, toilette paper and make-up removing pads.

DERWENT CLASS: E19 F09 P28

INVENTOR(S): MICHEL, N

PATENT ASSIGNEE(S): (SEPP) SEPPIC SOC EXPL PROD IND CHIM

COUNTRY COUNT: 25

PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
EP 1083261	A1	20010314	(200126)*	FR	7
R: AL AT BE CH CY DE DK ES FI FR GB GR IE IT LI LT LU LV MC MK NL PT RO SE SI					
FR 2798149	A1	20010309	(200126)		

## APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
EP 1083261	A1	EP 2000-402303	20000817
FR 2798149	A1	FR 1999-11221	19990908

PRIORITY APPLN. INFO: FR 1999-11221 19990908

ED 20010515

AN 2001-246855 [26] WPIDS

AB EP 1083261 A UPAB: 20010515

NOVELTY - The use of lipoaminoacids (currently used in preparation of cosmetics) for production of paper articles.

DETAILED DESCRIPTION - The patent refers to use of composition, comprising at least one compound of formula (I) (or its topically acceptable salts)

R = 3-30C (un)saturated linear or branched fatty acid chain;

R1 or (a) = chain or cyclic radical characteristic for aminoacid;

m = 1-5, preferably 1

in production of paper articles. The compound(s) (I) contained in composition is (are) preferably associated with at least one extract and/or tincture of tannin-rich vegetable materials, such as extracts of cinnamon, willow or hamamelis (sic), or they can be associated with at least one extract of vegetable matter selected from extracts of plants from Nymphaeaceae (water plants) family, especially extract of nenuphar Nuphar japonicum or Nymphaea Alba, or lotus Nelumbo nucifera or Brasenia purpurea.

An INDEPENDENT CLAIM is also included for the paper product containing 0.0005-0.5 weight% of one or more compounds of formula (I) as claimed.

USE - In production of paper articles for domestic, personal or sanitary use, especially these used in direct contact with skin and mucous membranes, such as paper tissues, paper towels and wipes, toilet paper and make-up removing pads made of paper or with non-woven support. Compound(s) (I) can be incorporated into cellulose paste, or applied onto final cellulosic product.

ADVANTAGE - Presence of compound(s) (I) in paper products has softening, shine-producing and freshening effect, and causes no irritation to skin.

Dwg.0/0

L52 ANSWER 11 OF 53 MEDLINE on STN  
 ACCESSION NUMBER: 2001507050 MEDLINE  
 DOCUMENT NUMBER: PubMed ID: 11555156  
 TITLE: Areca nut extract lowers the permeability of vaginal mucosa to reduced arecoline and arecaidine.  
 AUTHOR: van der Bijl P; van Eyk A D  
 CORPORATE SOURCE: Department of Pharmacology, Faculty of Medicine, University of Stellenbosch, Tygerberg 7505, South Africa..  
 pvdb@gerga.sun.ac.za  
 SOURCE: Journal of oral pathology & medicine : official publication of the International Association of Oral Pathologists and the American Academy of Oral Pathology, (2001 Oct) 30 (9) 537-41.  
 Journal code: 8911934. ISSN: 0904-2512.  
 PUB. COUNTRY: Denmark  
 DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)  
 LANGUAGE: English  
 FILE SEGMENT: Dental Journals; Priority Journals  
 ENTRY MONTH: 200112  
 ENTRY DATE: Entered STN: 20010917  
 Last Updated on STN: 20020122  
 Entered Medline: 20011217

ED Entered STN: 20010917

Last Updated on STN: 20020122

Entered Medline: 20011217

AB Areca nut chewing has been implicated in the development of oral cancer and oral submucous fibrosis. Arecoline and arecaidine, which are alkaloids present in the areca nut, are thought to play a major role in the development of adverse effects resulting from this chewing habit. Because these alkaloids appear to be associated with the development of the above diseases, we determined their diffusion kinetics through human vaginal mucosa in the presence and absence of a 1% areca nut extract. Seven clinically healthy vaginal mucosa specimens (mean patient age +/- standard deviation, 52 +/- 13 years; age range, 38-74 years) were obtained during surgery. In vitro flux values of reduced arecoline and arecaidine (r-arecoline and r-arecaidine) were determined through use of a flow-through diffusion apparatus. Analysis of variance, a Duncan multiple range test, and an unpaired t-test were used to determine steady state kinetics and flux differences over time intervals. The flux values across vaginal mucosa of r-arecoline and r-arecaidine were decreased in the presence of 1% areca nut extract. For r-arecoline, these flux values were significantly lower statistically when compared to those obtained in the absence of areca nut extract. These findings concur with results previously obtained for water, where the astringent action of the tannins present in the areca nut extract was thought to alter the barrier properties of the epithelium, resulting in decreased permeability. *ms*

L52 ANSWER 12 OF 53 HCAPLUS COPYRIGHT 2005 ACS on STN DUPLICATE 7

ACCESSION NUMBER: \* 1999:297339 HCAPLUS  
 DOCUMENT NUMBER: 130:313411  
 TITLE: Percolation-nanofiltration process and plant to extract and concentrate **tannins** from wood and other natural products  
 INVENTOR(S): Mustacchi, Carlo; Danesi, Paolo;  
 Festuccia, Andrea  
 PATENT ASSIGNEE(S): Proras S.R.L., Italy; Arcangeli, Adriana; Matturro, Giacomo

*applus  
work*

SOURCE: PCT Int. Appl., 20 pp.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

*371*  
*PDF*

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9921634	A1	19990506	WO 1998-EP6804	19981027
W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, HR, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
CA 2307628	AA	19990506	CA 1998-2307628	19981027
AU 9916644	A1	19990517	AU 1999-16644	19981027
AU 749605	B2	20020627		
EP 1027120	A1	20000816	EP 1998-961103	19981027
EP 1027120	B1	20021218		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, FI, RO				
TR 200001163	T2	20000821	TR 2000-200001163	19981027
BR 9813342	A	20000822	BR 1998-13342	19981027
AT 229837	E	20030115	AT 1998-961103	19981027
ES 2189281	T3	20030701	ES 1998-961103	19981027
PRIORITY APPLN. INFO.:			IT 1997-RM653	A 19971028
			WO 1998-EP6804	W 19981027

*Same Pct Instant Appl*

ED Entered STN: 14 May 1999

AB Solid products are subjected to extraction by percolation with water and/or steam and the thus obtained **tannin** solution is subjected to nanofiltration with spiral-wound membranes. The **tannins** have higher activity because they are not degraded by heavy heat treatments, and water and fuel usage are much lower than in traditional separation methods. Thus, 350 kg chopped chestnut wood was loaded to each of 3 extractors connected in parallel and extracted 4 h at 110°, 0.8 bar pressure, and water-wood ratio 1:1, giving extraction yield 95% and **tannin** concentration 8%. This solution from the extraction unit was clarified and nanofiltered at 50° and 4 MPa using a 50-mil Desal 5DK polyamide spiral-wound membrane, giving **tannin** concentration in permeate 58.7%, permeate flux 25 L/m<sup>2</sup>.h, and rejection 99.8%.

REFERENCE COUNT: 18 THERE ARE 18 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L52 ANSWER 13 OF 53 WPIDS COPYRIGHT 2005 THE THOMSON CORP on STN  
 ACCESSION NUMBER: 1999-340208 [29] WPIDS  
 DOC. NO. CPI: C1999-100331  
 TITLE: Cosmetic compositions containing an octanoyl amino acid and an undecylenoyl amino acid.  
 DERWENT CLASS: B05 D21 E16  
 INVENTOR(S): STOLTZ, C  
 PATENT ASSIGNEE(S): (SEPP) SEPPIC SOC EXPL PROD IND CHIM  
 COUNTRY COUNT: 20  
 PATENT INFORMATION:

PATENT NO KIND DATE WEEK LA PG

FR 2771633 A1 19990604 (199929)\* 21  
 WO 9927902 A1 19990610 (199930) FR  
 RW: AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE  
 W: JP US  
 EP 983055 A1 20000308 (200017) FR  
 R: DE FR GB  
 EP 983055 B1 20040414 (200426) FR  
 R: DE FR GB  
 DE 69823187 E 20040519 (200434)

## APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
FR 2771633	A1	FR 1997-15087	19971201
WO 9927902	A1	WO 1998-FR2571	19981130
EP 983055	A1	EP 1998-958280	19981130
		WO 1998-FR2571	19981130
EP 983055	B1	EP 1998-958280	19981130
		WO 1998-FR2571	19981130
DE 69823187	E	DE 1998-623187	19981130
		EP 1998-958280	19981130
		WO 1998-FR2571	19981130

## FILING DETAILS:

PATENT NO	KIND	PATENT NO
EP 983055	A1 Based on	WO 9927902
EP 983055	B1 Based on	WO 9927902
DE 69823187	E Based on	EP 983055
	Based on	WO 9927902

PRIORITY APPLN. INFO: FR 1997-15087 19971201

ED 19990723

AN 1999-340208 [29] WPIDS

AB FR 2771633 A UPAB: 19990723

NOVELTY - Compositions containing an octanoyl amino acid (I) and an undecylenoyl amino acid (II) or their salts.

DETAILED DESCRIPTION - The amino acids are of formulae (I) and (II):

R1 = octanoyl;

R2 = undecylenoyl;

R and R' = chains derived from amino acids; and

m, n = 1 - 5.

ACTIVITY - Antiseborrheic, dermatological. The minimum inhibitory concentrations at pH 5 for octanoyl glycine (II) and undecylenoyl glycine (III), alone and mixed, were determined as follows: Staphylococcus aureus - (II) 0.025 %, (III) 0.01 %; 50/50 (II) and (III) 0.01 %. Aspergillus Niger - (II) 2.5 %, (III) 0.25 %; 50/50 (II) and (III) 0.25 %.

MECHANISM OF ACTION - None given.

USE - Antimicrobial agent for the skin and mucous membranes, especially suitable for the treatment of acne. The compositions also have a soothing, protecting, hydrating and anti-aging effect.

ADVANTAGE - The compositions show less tendency to cause irritation than known anti-acneic compositions.

Dwg.0/0

L52 ANSWER 14 OF 53 HCAPLUS COPYRIGHT 2005 ACS on STN DUPLICATE 8

ACCESSION NUMBER: 1999:732741 HCAPLUS

DOCUMENT NUMBER: 131:341321

TITLE: **Saving** of water and chemicals in **tanning** industry by membrane processes

AUTHOR(S): Cassano, A.; Molinari, R.; Drioli, E.

CORPORATE SOURCE: Research Institute on Membranes and Modelling of Chemical Reactors, University of Calabria, Arcavacata di Rende, I-87030, Italy

SOURCE: Water Science and Technology (1999), 40(4-5), 443-450  
CODEN: WSTED4; ISSN: 0273-1229

PUBLISHER: Elsevier Science Ltd.

DOCUMENT TYPE: Journal

LANGUAGE: English

ED Entered STN: 18 Nov 1999

AB Some results on pressure-driven membrane operations able to improve chromium recovery from spent chromium **tanning** baths and to desalinate water discharged from filter-press after Cr(III) precipitation are reported. Nanofiltration was used to concentrate Cr(III) using a **spiral-wound** module. Cr concentration and COD in permeate were, resp., about 0 and 2-3 g/L as compared to initial feed values of 2.8 and 5.2 g/L; the high chloride concentration in the permeate suggested to reuse this solution in the pickling step **saving** fresh water and salts. The concentrate solution presented a higher Cr purification with respect to initial feed. It was tested in retanning, and after further concentration by chemical precipitation-dissoln. method, in **tanning** operations. Chemical and phys. analyses on leather treated with these solns. showed similar characteristics with respect to use of traditional Cr solution. Reverse osmosis was used to reduce the high salt content in wastewater from filter pressing of Cr hydroxide panels. Good rejection of reverse osmosis membrane to chloride and sulfate ions was observed

REFERENCE COUNT: 8 THERE ARE 8 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L52 ANSWER 15 OF 53 HCAPLUS COPYRIGHT 2005 ACS on STN DUPLICATE 9

ACCESSION NUMBER: 1998:416882 HCAPLUS

DOCUMENT NUMBER: 129:108235

TITLE: Interactions Responsible for Fouling Layer Formation during Apple **Juice** Microfiltration

AUTHOR(S): Riedl, Ken; Girard, Benoit; Lencki, Robert W.

CORPORATE SOURCE: Department of Food Science, University of Guelph, Guelph, ON, N1G 2W1, Can.

SOURCE: Journal of Agricultural and Food Chemistry (1998), 46(7), 2458-2464

CODEN: JAFCAU; ISSN: 0021-8561

PUBLISHER: American Chemical Society

DOCUMENT TYPE: Journal

LANGUAGE: English

ED Entered STN: 09 Jul 1998

AB Microfiltration of model solns. was conducted to identify the principal interacting species in foulant produced during membrane clarification of apple **juice**. **Tannin** and gelatin solns. did not foul microfiltration membranes, whereas both low-methoxy (LMP) and high-methoxy pectin (HMP) produced a fouling layer with only modest resistance. However, solns. containing high concns. of both **tannin** and gelatin had very low fluxes, indicating that the interaction of these two species is key to fouling layer formation. With unclarified apple **juice**

, **tannin** addition did not increase flux resistance because these compds. were in excess. On the other hand, LMP or HMP addition significantly enhanced flux resistance, probably by stabilizing colloidal particles. At low concns., gelatin-induced flocculation produced large aggregated particles with lower fouling layer resistances, but at elevated concns., gelatin addition stabilized colloidal particles, increasing flux resistance. A direct correlation between particle flocculation behavior and fouling layer resistance was observed

*MD*

REFERENCE COUNT: 44 THERE ARE 44 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L52 ANSWER 16 OF 53 HCAPLUS COPYRIGHT 2005 ACS on STN DUPLICATE 10

ACCESSION NUMBER: 1998:325194 HCAPLUS

DOCUMENT NUMBER: 129:15481

TITLE: Clarification of Pineapple **Juice** (Ananas comosus, L. Merryl) by Ultrafiltration and Microfiltration: Physicochemical Evaluation of Clarified **Juices**, Soft Drink Formulation, and Sensorial Evaluation

AUTHOR(S): de Carvalho, Lucia Maria Jaeger; Bento da Silva, Carlos Alberto; Pierucci, Anna Paola Trindade R.

CORPORATE SOURCE: Instituto de Nutricao, Universidade Federal do Rio de Janeiro, Rio de Janeiro, 21941-590, Brazil

SOURCE: Journal of Agricultural and Food Chemistry (1998), 46(6), 2185-2189

CODEN: JAFCAU; ISSN: 0021-8561

PUBLISHER: American Chemical Society

DOCUMENT TYPE: Journal

LANGUAGE: English

ED Entered STN: 03 Jun 1998

AB Concentrated pineapple **juice** reconstituted to 12 °Brix was used to obtain three types of clarified **juices** by ultrafiltration (UF) and microfiltration (MF) systems with **polysulfone** and ceramic membranes. They were evaluated by physicochem. anal., in comparison to the reconstituted **juice** control, as well as through the sensorial evaluation of the soft drinks obtained by them. The best volume recovery was observed with 50,000 Da **polysulfone** membranes. Best components recovery was obtained with the 0.22 µm ceramic membrane. The 50,000 Da **polysulfone** membrane presented better efficiency to remove **tannins** and pectin. Both membranes of 50,000 D cutoff presented the same performance to decrease turbidity. The 0.22 µm ceramic membrane presented the best overall performance. Clarified **juice** flow rate was highest in the **juice** obtained using the 0.22 µm ceramic membrane (52.02 L m<sup>-2</sup> h<sup>-1</sup>). The three soft drinks formulated from the clarified pineapple **juices** presented no differences, at a significance level of 5%.

REFERENCE COUNT: 37 THERE ARE 37 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L52 ANSWER 17 OF 53 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation. on STN

ACCESSION NUMBER: 1998:445236 BIOSIS

DOCUMENT NUMBER: PREV199800445236

TITLE: Effect of aqueous areca nut extract on the permeability of mucosa.

AUTHOR(S): Van Der Bijl, P. [Reprint author]; Thompsen, I. O. C.

CORPORATE SOURCE: Oral Dental Res. Inst., Faculty Dentistry, Univ. Stellenbosch, Private Bag X1, Tygerberg 7505, South Africa

SOURCE: South African Journal of Science, (May, 1998) Vol. 94, No.

*no Prior art*

5, pp. 241-243. print.  
CODEN: SAJSAR. ISSN: 0038-2353.

DOCUMENT TYPE: Article  
LANGUAGE: English  
ENTRY DATE: Entered STN: 21 Oct 1998  
Last Updated on STN: 21 Oct 1998

ED Entered STN: 21 Oct 1998  
Last Updated on STN: 21 Oct 1998

AB The adverse effects associated with areca (betel) nut chewing, including oral submucous fibrosis (OSF) and oral cancer are well known. In the etiology of these diseases, components of the nut have to penetrate the epithelial barrier to reach the connective tissue. Since human vaginal mucosa is similar to oral mucosa with respect to histology and permeability to **water**, we decided to investigate the effects on permeability of vaginal mucosa in the presence of areca nut extract. Specimens of fresh clinically healthy vaginal mucosa (n = 12) were taken from excised tissue obtained during vaginal hysterectomies. Seven biopsies from each specimen (n = 6) were mounted in flow-through diffusion cells (exposed area 0.039 cm<sup>2</sup>) and their permeability to <sup>3</sup>HO<sub>2</sub> determined in the presence of 1% aqueous baked areca nut extract using a continuous flow-through perfusion system. The six remaining specimens were used as controls. Specimens were examined histologically before and after permeability experiments. Mean steady state flux values (+/- s.e.m.) (8-20 h) of 1923 +/- 2 and 2262 +/- 9 cpm min<sup>-1</sup> cm<sup>-2</sup> were obtained in the presence and absence (control) of areca nut extract, respectively. Although no statistically significant differences (Kruskal-Wallis test) between these flux values were found, the presence of areca nut extract lowered the mean mucosal permeability by about 20% when compared to the control specimens. We propose that the astringent action of the **tannins** present in areca nut **extract** alters the barrier properties of the epithelium, a factor which may play a role in the deleterious effects on oral mucosa.

L52 ANSWER 18 OF 53 SCISEARCH COPYRIGHT (c) 2005 The Thomson Corporation.  
on STN

ACCESSION NUMBER: 97:710311 SCISEARCH  
THE GENUINE ARTICLE: XW900  
TITLE: Juice extraction from apples and other fruits and vegetables  
AUTHOR: Beveridge T (Reprint)  
CORPORATE SOURCE: AGR & AGRI FOOD CANADA, RES CTR, SUMMERLAND, BC V0H 1Z0, CANADA (Reprint)  
COUNTRY OF AUTHOR: CANADA  
SOURCE: CRITICAL REVIEWS IN FOOD SCIENCE AND NUTRITION, (AUG 1997) Vol. 37, No. 5, pp. 449-469.  
Publisher: CRC PRESS INC, 2000 CORPORATE BLVD NW, JOURNALS CUSTOMER SERVICE, BOCA RATON, FL 33431.  
ISSN: 1040-8398.  
DOCUMENT TYPE: General Review; Journal  
FILE SEGMENT: AGRI  
LANGUAGE: English  
REFERENCE COUNT: 64

\*ABSTRACT IS AVAILABLE IN THE ALL AND IALL FORMATS\*

AB Presses are the usual and traditional method of removing juice from fruit and vegetable materials. However, recently diffusion extraction, centrifugation, and specialized ultrafiltration techniques have been explored and have been exploited commercially to a limited extent. Yield efficiency diagrams that relate juice yields to mash feed rates provide a mechanism for comparing presses and other processes such as enzyme

treatments or decanter centrifuges for efficiency under a stated set of circumstances. Diffusion extraction is capable of removing 90 to 94% of soluble solids from properly prepared apple slices, but the resulting juice is diluted with extraction **water** and is high in **extracted tannins**. Concentration is necessary to obtain juice solids equivalency, and the resulting juice has sour/astringent flavors that must be removed with tannin absorbants to provide acceptable flavor. Currently, decanter centrifuges are used commercially and have provided an alternative to presses under certain circumstances. When naturally colored and flavored (unoxidized) juices are desired, the decanter provides a useful alternative to presses because it is easily inert gas blanketed. Utilization of a metallic ultrafilter as a press has been patented but has not achieved commercial utilization. The technical literature describing the application of these juice extraction juices, primarily to apples, is reviewed extensively. MD

L52 ANSWER 19 OF 53 SCISEARCH COPYRIGHT (c) 2005 The Thomson Corporation.  
on STN

ACCESSION NUMBER: 97:384018 SCISEARCH

THE GENUINE ARTICLE: WY285

TITLE: Dependence of tannin/hexamine particleboard performance from pressing conditions

AUTHOR: Wang S (Reprint); Pizzi A

CORPORATE SOURCE: UNIV NANCY 1, ENSTIB, EPINAL, FRANCE (Reprint)

COUNTRY OF AUTHOR: FRANCE

SOURCE: HOLZ ALS ROH-UND WERKSTOFF, (MAY 1997) Vol. 55, No. 3, pp. 174-174.

Publisher: SPRINGER VERLAG, 175 FIFTH AVE, NEW YORK, NY 10010.

ISSN: 0018-3768.

DOCUMENT TYPE: Article; Journal

FILE SEGMENT: ENGI

LANGUAGE: English

REFERENCE COUNT: 0

\*ABSTRACT IS AVAILABLE IN THE ALL AND IALL FORMATS\*

AB Subject Dry and wet strength performance of tannin bonded particleboard using hexamine as hardener is mainly influenced by the press time and to a less degree by m.c.

Materials and Methods Duplicate single layer laboratory particleboards of dimensions 350 x 300 x 14 mm were bonded with a tannin adhesive composed of a 35% solution in **water** of pecan/pine **tannin extracts** adjusted to pH 9 by addition of 33% NaOH solution and to which was added as hardener 6.5% on **tannin extract** solids of hexamethylenetetramine (hexamine) solids added as a 40% **water** solution. Adhesives solids percentage on dry wood was of 12%. Pine (*Pinus radiata*) bark and Pecan (*Carya illinoensis*) nut **membranes tannin extracts** were used. The boards were pressed at 170 degrees C and maximum pressure of 24 kg/cm(2) at the moisture contents of the resinated particles and at the pressing times indicated in the Table. The boards were tested for internal bond (I.B.) strength dry (V20) and after 2 hours in boiling **water**, tested wet (V100). The results are shown in the Table.

Results and Discussion Both dry (V20) and wet (V100) I.B. strength results indicate that in the case of hexamine being used as hardener of fast tannins such as in pine and pecan tannin adhesives the strength performance, both dry and wet, of the board is strongly influenced by the press time and much less by the percentage moisture content of the resinated wood particles within the range of conditions used. The dry and wet I.B. strengths increase with decreasing press time up to a maximum for



17 s/mm and then decreases to an almost stable value when further shortening the press time, results both satisfying the V20 and V100 standard requirements being obtained down to 10.7 s/mm. At 8.6 s/mm the dry I.B. results start to markedly decrease, while the wet I.B. results while not satisfying anymore the V100 requirements are still very close to it. As such fast pressing times are reached the I.B. results, at least for the dry I.B., are brought back to a good value by just decreasing the % moisture content of the resinated chips, this relationship between faster press time and moisture content being likely to exist even for faster press times. The total system behaviour confirms that too long a press time, or even lack of cooling immediately after pressing for hexamine hardened tannin adhesives leads to progressive heat induced decomposition of the benzylamine bridges characteristic of this system hardened networks, with partial lack of their rearrangement to simple methylene bridges due to the already achieved immobilization of the solid network, and consequent decrease of I.B. strength.

L52 ANSWER 20 OF 53 WPIDS COPYRIGHT 2005 THE THOMSON CORP on STN DUPLICATE  
11

ACCESSION NUMBER: 1996-499320 [50] WPIDS  
DOC. NO. CPI: C1996-156065  
TITLE: Purification of vapour condensates from beer production - by pumping under press. through a reverse osmosis module containing a semipermeable membrane to give a permeate which can be re-used.  
DERWENT CLASS: A88 D15 D16  
INVENTOR(S): LENZ, B; LENZ, A  
PATENT ASSIGNEE(S): (LENZ-I) LENZ B; (HUPP-N) HUPPMANN GMBH HRCH  
COUNTRY COUNT: 8  
PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
EP 742283	A2	19961113	(199650)*	GE	8
R: AT BE DE	ES FR GB IT NL				
DE 19516969	A1	19961114	(199651)		7
EP 742283	B1	20040811	(200452)	GE	
R: AT BE DE	ES FR GB IT NL				
DE 59611052	G	20040916	(200461)		

## APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
EP 742283	A2	EP 1996-107490	19960510
DE 19516969	A1	DE 1995-1016969	19950512
EP 742283	B1	EP 1996-107490	19960510
DE 59611052	G	DE 1996-511052	19960510
		EP 1996-107490	19960510

## FILING DETAILS:

PATENT NO	KIND	PATENT NO
DE 59611052	G Based on	EP 742283

PRIORITY APPLN. INFO: DE 1995-19516969 19950512  
ED 19961211  
AN 1996-499320 [50] WPIDS

AB EP 742283 A UPAB: 19961211

An appts. and process for purification of condensated obtd. by condensn. of the vapours evolved during cooking of the wort during the production of beer, comprises a pump to pump the condensate under pressure through a reverse osmosis unit containing semipermeable membrane in which the condensate is separated into a permeate which is collected for further use and a concentrate which is led off for direct or indirect disposal into the drains.

The semipermeable membrane is pref. of highly crosslinked aromatic polyamide and the reverse osmosis module is pref. a spirally wound module with a textile carrier and the actual semipermeable membrane.

USE - For treating the large volumes of condensate generated in the brewing industry during cooking of the wort and which contains a number of organic components such as eg. phenyl- and benzyl-ethanol, 2- and 3-methylbutanal and -butanol, pentanol, hexanol, N-heterocyclics, DMS and polyphenols, to give a permeate that can be re-used in the brewing process or as boiler feed water, and a retentate which can be discharged into the sewerage system.

ADVANTAGE - The process gives a large reduction in the volume of waste water discharged into the drainage system.

Dwg.1/2

L52 ANSWER 21 OF 53 HCAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 1998:158753 HCAPLUS

DOCUMENT NUMBER: 128:256635

TITLE: Phenolic constituents of wine and fouling of polymeric membranes in tangential microfiltration  
AUTHOR(S): Cameira-dos-Santos, P. J.; Cheynier, V.; Brillouet, J. M.; Cadot, Y.; Escudier, J. L.; Roesink, H. D. V.; Moutounet, M.

CORPORATE SOURCE: Lab. Polym. Tech. Phys. Chim., Inst. Produits Vigne, Montpellier, 34060, Fr.

SOURCE: Oenologie 95, Symposium International d'Oenologie, 5th, Bordeaux, June, 1995 (1996), Meeting Date 1995, 455-459. Editor(s): Lonvaud-Funel, Aline. Tec & Doc - Lavoisier: Paris, Fr.

CODEN: 65SZA4

DOCUMENT TYPE: Conference

LANGUAGE: French

ED Entered STN: 18 Mar 1998

AB Tangential microfiltration of wines via modified polysulfone membranes was associated with the accumulation of Et p-coumarate, malvidin 3-glucoside, and tannins on the membrane.

A possible role for the phenols in fouling mechanisms is discussed based on modification of the surface properties of the membrane.

REFERENCE COUNT: 8 THERE ARE 8 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L52 ANSWER 22 OF 53 WPIDS COPYRIGHT 2005 THE THOMSON CORP on STN

ACCESSION NUMBER: 1995-228605 [30] WPIDS

CROSS REFERENCE: 2003-159705 [16]

DOC. NO. CPI: C1995-105303

TITLE: Topical preparation for cosmetic for preventing rough skin and wrinkles - contains alpha-hydroxy acid, protein extracted from egg shell membrane and opt. e.g. collagen.

DERWENT CLASS: D21 E19

PATENT ASSIGNEE(S): (NOEV-N) NOEVIR KK

COUNTRY COUNT: 1

## PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
JP 07138142	A	19950530	(199530) *	10	
JP 3393559	B2	20030407	(200327)	3	

## APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
JP 07138142	A	JP 1993-281600	19931015
JP 3393559	B2	JP 1993-281600	19931015

## FILING DETAILS:

PATENT NO	KIND	PATENT NO
JP 3393559	B2 Previous Publ.	JP 07138142

PRIORITY APPLN. INFO: JP 1993-281600 19931015

ED 19950804

AN 1995-228605 [30] WPIDS

CR 2003-159705 [16]

AB JP 07138142 A UPAB: 20030429

Topical preparation contains (1) at least of alpha-hydroxy acid, its salts and derivs., (2) protein extracted from egg shell membrane, and opt. (3) collagen and/or elastin, Hamameri(sic) tannin, or vitamin E-containing cpds..

USE - The preparation e.g. cosmetics such as skin lotion, is useful for preventing and improving rough skin, and wrinkles.

**Tannin** is prepared by **extracting** leaves and bark of the plant named Hamameris (sic).

In an example, a milk lotion was prepared from squalene (5.0 weight%), white vaseline (2.0 %), beeswax (0.5%), sorbitan sesquioleate (0.8 weight%), polyoxyethylene (20) phenylether (1.2 weight%), propylene glycol (5.0 weight%), ethanol (2.0 weight%), 1.0 % carboxyvinyl polymer aqueous solution (20.0 weight%),

methyl parahydroxybenzoate (0.1 weight%), potassium hydroxy (0.1 weight%), lactic acid (0.3 weight%), collagen (0.01 weight%), elastin (0.01 weight%), a perfume (0.2 weight%) and refined **water** (balance).  
Dwg.0/0

L52 ANSWER 23 OF 53 WPIDS COPYRIGHT 2005 THE THOMSON CORP on STN DUPLICATE 12

ACCESSION NUMBER: 1992-319485 [39] WPIDS

DOC. NO. CPI: C1992-141942

TITLE: Fibre-reinforced plastic ring production, used to produce gears, etc. - comprises impregnating cotton cloth with phenol resin, cutting into rectangular shape, spirally winding into tube, forming tube into ring, setting ring in mould, etc..

DERWENT CLASS: A32 A88

PATENT ASSIGNEE(S): (KOBE) SHIN KOBE ELECTRIC MACHINERY

COUNTRY COUNT: 1

PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
-----------	------	------	------	----	----

JP 04223103	A	19920813 (199239)*	2
JP 07102577	B2	19951108 (199549)	2

## APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
JP 04223103	A	JP 1990-406582	19901226
JP 07102577	B2	JP 1990-406582	19901226

## FILING DETAILS:

PATENT NO	KIND	PATENT NO
JP 07102577	B2 Based on	JP 04223103

PRIORITY APPLN. INFO: JP 1990-406582 19901226

ED 19930806

AN 1992-319485 [39] WPIDS

AB JP 04223103 A UPAB: 19931114

After the cotton cloth is impregnated with phenol resin, it is cut into a rectangular shape. The rectangular resin impregnated cotton cloth is **spirally wound** into a tube. The tube is formed into a ring so that both ends of the tube are connected to each other. After the ring is set in the mould, a metallic bushing is fitted in the ring. Then, they are subjected to compression moulding while being heated. Thereafter the gear wheel is produced by forming the gear on the ring.

USE/ADVANTAGE - By moulding the fibre reinforced plastic rings, production of discs, pulleys, gears, wheels or collars can be effected. The ring is produced easily and efficient  
Dwg.0/2

L52 ANSWER 24 OF 53 MEDLINE on STN

ACCESSION NUMBER: 93038456 MEDLINE

DOCUMENT NUMBER: PubMed ID: 1417692

TITLE: The use of tannin from chestnut (*Castanea vesca*).

AUTHOR: Krisper P; Tisler V; Skubic V; Rupnik I; Kobal S

CORPORATE SOURCE: Jugotannin Chemical Industry, Sevnica, Slovenia.

SOURCE: Basic life sciences, (1992) 59 1013-9. Ref: 5

Journal code: 0360077. ISSN: 0090-5542.

PUB. COUNTRY: United States

DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)

General Review; (REVIEW)

(REVIEW, TUTORIAL)

LANGUAGE: English

FILE SEGMENT: Priority Journals

ENTRY MONTH: 199211

ENTRY DATE: Entered STN: 19930122

Last Updated on STN: 19930122

Entered Medline: 19921117

ED Entered STN: 19930122

Last Updated on STN: 19930122

Entered Medline: 19921117

AB After mimosa and quebracho extracts, chestnut extract is the third most important vegetable tannin used for leather production. It is produced only in Europe on the northern side of the Mediterranean sea. The extract is prepared by hot **water** extraction of the bark and timber, followed by spray-drying of the solution. Analysis shows that there are insignificant variations in extract quality between batches, so the

extract can be used with modern automated leather production systems. The **extract** contains approximately 75 percent active **tanning** substances. The primary component is castalagin, along with smaller amounts of vescalagin, castalin, and vescalin. A castalagin-based pharmaceutical product is currently in use for prevention and treatment of diarrhea in pigs and cattle that is caused by changes in diet. The beneficial effect is due to prevention of **water** losses through mucous membranes. The castalagin may also form chelates with iron, which influences the reabsorption of the metal in the animal digestive tract.

L52 ANSWER 25 OF 53 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation. on STN

ACCESSION NUMBER: 1992:457 BIOSIS  
DOCUMENT NUMBER: PREV199293000457; BA93:457  
TITLE: THE TANNINS OF TROPICAL BROWSE LEGUMES AND THEIR CHARACTERIZATION BY GEL FILTRATION.  
AUTHOR(S): AHN J H [Reprint author]; ELLIOTT R  
CORPORATE SOURCE: COLLEGE ANIMAL HUSBANDRY, KON-KUK UNIV, SEOUL  
SOURCE: Korean Journal of Animal Nutrition and Feedstuffs, (1991) Vol. 15, No. 4, pp. 206-213.  
ISSN: 1011-2294.  
DOCUMENT TYPE: Article  
FILE SEGMENT: BA  
LANGUAGE: ENGLISH  
ENTRY DATE: Entered STN: 10 Dec 1991  
Last Updated on STN: 10 Dec 1991

ED Entered STN: 10 Dec 1991

Last Updated on STN: 10 Dec 1991

AB An investigation of the extent to which different methods of tannin estimation are reliable was made in order to evaluate the nutritional effects of tannins on feed quality of 12 species of tropical browse legumes. Large variation existed in total phenolic content of the species examined (2.3-20.0%, freeze dried). Drying at 60° C resulted in a lower total phenolic content in most species, but the extent of the depressions was highly variable (2.7-90.0%). Condensed tannin content was also variable between species depending on the analytical method. Acacia angustissima which did not register an anthocyanidin content using butanol-HCl method was found to have condensed tannins (6% DM) when assayed by vanillin-HCl. Dehydration at 60° C decreased both condensed tannin (vanillin-HCl) and anthocyanidin (butanol-HCl) concentrations in all species. There was a significant correlation  $r^2 = 0.73$  between the total phenolic content of freeze dried and oven dried samples and their condensed tannins estimated by vanillin -HCl. There was no significant correlation between total phenolics and butanol-HCl, or between vanillin-HCl and butanol-HCl estimates of condensed tannins. As a first step towards characterization of the tannins in the range of browse legumes examined in this study a separation by gel filtration was also attempted. Extracts from the legumes were passed through a column containing Sephadex G-50 and eluted with triple deionized **water**. Samples of eluate were concentrated and the presence of anthocyanidins determined by butanol-HCl. Losses in tannin content were recorded after filtration through **membrane** filters prior to application in the column. Losses were also recorded after passage through the column. Recoveries of 83% were recorded in extracts from Calliandra but only 2.4, 16.7 and 25.8% from extracts of Gliricidia, Acacia aneura and Codariocalyx respectively. The problems associated with **tannin extraction** and identification are discussed.

*MD*  
*Jane*  
*Reh*

L52 ANSWER 26 OF 53 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation. on STN

ACCESSION NUMBER: 1990:243833 BIOSIS  
 DOCUMENT NUMBER: PREV199089130786; BA89:130786  
 TITLE: MEASUREMENT OF LOW MOLECULAR WEIGHT TANNINS INDICATORS OF METHANOGENIC TOXIC TANNINS.  
 AUTHOR(S): FIELD J [Reprint author]; LETTINGA G; HABETS L H A  
 CORPORATE SOURCE: DEP CHEM ENG, AUTONOMOUS UNIV BARCELONA, 08193 BELLATERRA, BARCELONA, SPAIN  
 SOURCE: Journal of Fermentation and Bioengineering, (1990) Vol. 69, No. 3, pp. 148-153.  
 CODEN: JFBIEX. ISSN: 0922-338X.  
 DOCUMENT TYPE: Article  
 FILE SEGMENT: BA  
 LANGUAGE: ENGLISH  
 ENTRY DATE: Entered STN: 19 May 1990  
 Last Updated on STN: 19 May 1990

ED Entered STN: 19 May 1990

Last Updated on STN: 19 May 1990

AB The effectiveness of several low molecular weight (MW) tannin measurement methods for indicating the tannin toxicity to methane bacteria was evaluated. The methanogenic toxicity of the low and high MW tannins from autoxidized bark extracts was studied by selective removal of MW fractions from the extract with active carbon adsorption and calcium precipitation treatments. The toxicity of the low MW tannin fraction and the nontoxicity of the high MW tannin fraction were demonstrated. The low MW **tannin concentration**, measured by HPLC and a method based on the loss of tannins by treatment with granular active carbon (AC), had a very close relationship with the methanogenic toxicity, but a poor relationship was found with the total **tannin concentration**. The low MW tannins detected by the HPLC and AC methods had similar peak area positions in HPLC chromatograms as the tannins that were adsorbed by **polyamide** (trisacryl GF05) gel beads. These gel beads have an exclusion limit of 3000 g · mol<sup>-1</sup>, indicating that this is the approximate MW boundary between toxic and non-toxic tannins.

*mo*

L52 ANSWER 27 OF 53 HCAPLUS COPYRIGHT 2005 ACS on STN DUPLICATE 13

ACCESSION NUMBER: 1988:491145 HCAPLUS  
 DOCUMENT NUMBER: 109:91145  
 TITLE: Crossflow membrane filtration of **wines**: comparison of performance of ultrafiltration, microfiltration, and intermediate cut-off membranes  
 AUTHOR(S): Peri, C.; Riva, M.; Decio, P.  
 CORPORATE SOURCE: Dip. Sci. Tecnol. Aliment. Microbiol., Univ. Milan, Milan, 20133, Italy  
 SOURCE: American Journal of Enology and Viticulture (1988), 39(2), 162-8  
 CODEN: AJEVAC; ISSN: 0002-9254  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English

ED Entered STN: 17 Sep 1988

AB Crossflow membrane filtration expts. have been performed using three membranes: (1) a cellulose-nitrate microfiltration membrane having an average pore diameter of 0.2 µm (MF 0.2); (2) a **polysulfone** ultrafiltration membrane having a nominal cut-off of 100,000 daltons (UF 100); and (3) a cellulose-acetate membrane having a cut-off of 20,000 daltons (UF 20). Expts. have been carried out on a white, very light **wine** and a red, full-bodied **wine**. Retention data,

evaluated for all major **wine** components, show that differences in membrane behavior mostly concern the colloidal and phenolic fractions, with consequences on the taste and color of **wines**. Colloids are fully retained by the UF 20 membrane, while they fully permeate the MF 0.2 membrane; intermediate retentions (50%-60%) were observed for the UF 100 membrane. Similarly, phenolics are strongly retained by the UF 20 membrane (70%-80% retentions of all fractions, including anthocyanins), moderately retained (20%-30% retention) by the UF 100 membrane, and practically unretained by the MF 0.2 membrane. While a partial removal of **tannins** from the red **wine** was beneficial in terms of taste, as pointed out by the sensory evaluation of astringency, the removal of anthocyanins by the UF 20 membrane determined an unacceptable loss of red **wine** color. Concerning the turbidity reduction, it was observed that all three membranes gave acceptable results when operating on the slightly cloudy white **wine**, while the performance of the MF 0.2 membrane was inadequate on the highly turbid red **wine**. Finally, the comparison of permeability data obtained in the red **wine** treatment demonstrated that the MF 0.2 membrane was largely superior to the other two membranes in that it did not retain, and therefore was not plugged by, colloids. It is concluded that ultrafiltration membranes are unsuitable for **wine** treatment and that the optimum cut-off probably lies around 0.1  $\mu\text{m}$ , which is the lower range of pore diameter of the classical microfiltration processes.

L52 ANSWER 28 OF 53 WPIDS COPYRIGHT 2005 THE THOMSON CORP on STN DUPLICATE  
14

ACCESSION NUMBER: 1986-059620 [09] WPIDS  
DOC. NO. NON-CPI: N1986-043541  
DOC. NO. CPI: C1986-025393  
TITLE: Lightweight steering wheel production - includes winding resin-impregnated strand round mould so that a specific filament orientation is achieved.  
DERWENT CLASS: A32 A95 Q22  
PATENT ASSIGNEE(S): (TOYO-N) TOYODA BOSHOKU KK; (TOYT) TOYOTA JIDOSHA KK  
COUNTRY COUNT: 1  
PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
JP 61012326	A	19860120	(198609)*		4

## APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
JP 61012326	A	JP 1984-134572	19840629

PRIORITY APPLN. INFO: JP 1984-134572 19840629

ED 19930802

AN 1986-059620 [09] WPIDS

AB JP 61012326 A UPAB: 19930922

Resin-impregnated strand is wound round a mould for producing steering wheel 20 so that filaments 11 are oriented along the lengths of ring 22 and spoke 21 of steering wheel 20. The resin impregnated strand 12 is wound spirally round ring 22 and spoke 21 at an angle of 30-60 degrees. Epoxy, phenol, or unsatd. polyester resin are used. Carbon or glass filaments are used and their total number per strand 12 is 2,000-30,000.

ADVANTAGE - The wheel is lightweight and of superior strength and torsional rigidity.

1,4/4

L52 ANSWER 29 OF 53 WPIDS COPYRIGHT 2005 THE THOMSON CORP on STN  
 ACCESSION NUMBER: 1986-250950 [38] WPIDS  
 DOC. NO. CPI: C1986-108179  
 TITLE: Plant for dewatering effluent sludge - has sludge fed by  
**spiral** element to **spirally**  
**wound** filter sleeve on perforated cylindrical  
 shell.  
 DERWENT CLASS: D15  
 INVENTOR(S): EREMENKO, A I; POPOV, A I; SHCHERBINA, V F  
 PATENT ASSIGNEE(S): (VODM-R) VODMASHTEKHNKA  
 COUNTRY COUNT: 1  
 PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
SU 1209610	A	19860207	(198638)*		6

## APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
SU 1209610	A	SU 1984-3786158	19840825

PRIORITY APPLN. INFO: SU 1984-3786158 19840825

ED 19930802

AN 1986-250950 [38] WPIDS

AB SU 1209610 A UPAB: 19930922

The **plant** comprises a vertical cylindrical perforated shell, with external filter sleeve and six external vertical rollers which rotate around the perforated shell, a sludge feed system and separate discharges for the dewatered sludge and the **extracted water**. As the vertical rollers rotate, the sludge accumulation in the filter sleeve is compressed, the dewatered sludge being gradually transferred to the discharge pipe, whilst the **water** drains into the cylindrical shell and is discharged.

ADVANTAGE - Improved dewatering of sludge and increased throughput.

1/5

L52 ANSWER 30 OF 53 HCAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 1986:223486 HCAPLUS

DOCUMENT NUMBER: 104:223486

TITLE: Purification of millet **wine** by  
 ultrafiltration technology

AUTHOR(S): Wu, Lingling; Kang, Dekuan; Liu, Shuxiu; Cheng, Liming

CORPORATE SOURCE: Beijing Polytechnic Univ., Beijing, Peop. Rep. China

SOURCE: Mo Fenli Kexue Yu Jishu (1985), 5(2), 48-58

CODEN: MFKJDB; ISSN: 0254-6140

DOCUMENT TYPE: Journal

LANGUAGE: Chinese

ED Entered STN: 27 Jun 1986

AB Ultrafiltration with **polysulfone** and **polysulfonamide** membranes improved the quality (color, odor, and taste) of millet **wine**. Membranes with pore size 0.036-0.054 nm gave good results, and the filtration rate was 2-3.7 mL **wine**/cm<sup>2</sup>-h. After



filtration, 7.8-14.4% of **tannins** remained in the filtrate. The membrane filters were stable in **wine** for 6 mo.

L52 ANSWER 31 OF 53 WPIDS COPYRIGHT 2005 THE THOMSON CORP on STN DUPLICATE 15

ACCESSION NUMBER: 1983-31195K [13] WPIDS  
 DOC. NO. CPI: C1983-030517  
 TITLE: Friction compsn. suitable for brakes and clutches -  
 comprising phenolic resin and magnesium silicate.  
 DERWENT CLASS: A21 A81 E33 L02  
 PATENT ASSIGNEE(S): (MATW) MATSUSHITA ELECTRIC WORKS LTD  
 COUNTRY COUNT: 1  
 PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
JP 58029874	A	19830222	(198313)*		2

PRIORITY APPLN. INFO: JP 1981-127943 19810814

ED 19930726

AN 1983-31195K [13] WPIDS

AB JP 58029874 A UPAB: 19930925

Friction compsn. comprises magnesium silicate with phenol resin.

Useful as substitute for asbestos. Prod. exhibits resistance to shock and wear equal to that of asbestos type. Additives are opt. used e.g. hexamethylenetetramine, and zinc stearate, etc. For making brakes and clutches, the compsn. is hot-extruded to make a prepreg, then the prepreg is cut in a given length, **spirally wound**, then hot-pressed in a metal mould to give disc plate.

In an example 44 weight% phenol resin, 50 weight% magnesium silicate, 1 weight% zinc stearate, were mixed and the mixture was extruded at 100 deg.C to a rope, then the rope was cut to a given length. The cut rope was **spirally wound** to a given length, and hot-pressed at 100 kg/cm<sup>2</sup> for 90 sec. at 150 deg.C.

L52 ANSWER 32 OF 53 WPIDS COPYRIGHT 2005 THE THOMSON CORP on STN DUPLICATE 16

ACCESSION NUMBER: 1983-42897K [18] WPIDS

DOC. NO. CPI: C1983-041811

TITLE: Stable fruit drink preparation - using fruit juice  
filtered through ultrafiltration  
membrane.

DERWENT CLASS: ~~A88~~ D13 J01

PATENT ASSIGNEE(S): (SOSH) SODA AROMATIC KK; (TORA) TORAY IND INC

COUNTRY COUNT: 1

PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
JP 58051880	A	19830326	(198318)*		5

PRIORITY APPLN. INFO: JP 1981-147774 19810921

ED 19930726

AN 1983-42897K [18] WPIDS

AB JP 58051880 A UPAB: 19930925

Method comprises using fruit juice which is pre-filtered through the **ultrafiltration membrane** having fractionating molecular weight 3000-20000, as starting material. Pref. the **ultrafiltration membrane** of cellulose-type, polyfluorine-type, **polysulphone**-type, PMMA, etc. can be used in the form of tubular module, **spiral** module, hollow tube module, etc. The **ultrafiltration** is practiced at 20-70 deg.C under the pressure below 10 kg/cm2G.

The **ultrafiltration**-treated fruit juice can be used for preparing fruit juice drink, carbonated fruit juice drink, fruit juice-containing lactic acid beverage, fruit juice-containing bean milk drink, etc. Fruit juice drink is stable and can be preserved for long time without the formation of ppt. caused from fruit juice and milk protein. Pectin substance and high molecular **tannin** substance are removed and the formation of sec. ppt. can be avoided. The potato-like specific odour and browning pigment can be removed from fruit juice. Foaming substance and in the case of grape juice, tartar can be removed.

L52 ANSWER 33 OF 53 WPIDS COPYRIGHT 2005 THE THOMSON CORP on STN  
 ACCESSION NUMBER: 1983-817545 [46] WPIDS  
 DOC. NO. NON-CPI: N1983-204760  
 DOC. NO. CPI: C1983-111433  
 TITLE: Lightweight, wear-resistant carbon fibre reinforced plastic gear - is mfd. by impregnating braided or knitted carbon fibre bundle with resin, shaping into tape, laminating, moulding and machining.  
 DERWENT CLASS: A32 A88 Q64  
 PATENT ASSIGNEE(S): (SUME) SUMITOMO ELECTRIC IND CO  
 COUNTRY COUNT: 1  
 PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
JP 58170963	A	19831007	(198346)*		3

PRIORITY APPLN. INFO: JP 1982-54438 19820331  
 ED 19930726  
 AN 1983-817545 [46] WPIDS  
 AB JP 58170963 A UPAB: 19930925

Fibre-reinforced plastic gear is produced by impregnating a braided or knitted reinforcing fibre bundle of carbon fibres or a blend of carbon fibres and other fibres (e.g., glass fibre, etc.) with thermosetting or thermoplastic resin (e.g., epoxy resin, phenolic resin, polyester resin, polyamide, **polysulphone** resin, etc.) having a high heat resistance. The fibre bundle is then shaped into a tape, the tape **spirally** laminated by hot compression and moulded and the laminate plate machined into a gear.

The fibre-reinforced plastic gear has excellent lightness and wear resistance, as well as self-lubricity and quietness. The gear also has excellent impact resistance and can be obtd. at low cost, and may be used under high loads.

0/6

L52 ANSWER 34 OF 53 WPIDS COPYRIGHT 2005 THE THOMSON CORP on STN  
 ACCESSION NUMBER: 1983-42668K [18] WPIDS  
 DOC. NO. NON-CPI: N1983-077028  
 DOC. NO. CPI: C1983-041586

TITLE: Composite gear mfr. - by integrating metal boss with fibre reinforced plastic threaded rim.  
 DERWENT CLASS: A32 A88 P73 Q64  
 PATENT ASSIGNEE(S): (SUME) SUMITOMO ELECTRIC IND CO  
 COUNTRY COUNT: 1  
 PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
JP 58050356	A	19830324	(198318)*		3

PRIORITY APPLN. INFO: JP 1981-146943 19810916  
 ED 19930726  
 AN 1983-42668K [18] WPIDS  
 AB JP 58050356 A UPAB: 19930925

Composite gear is obtd. by integrally combining a boss portion made of metal and a threaded rim portion of fibre-reinforced plastic material by bonding or press-bonding and bolt coupling. The fibre-reinforced plastic material is a false isotropic laminate plate formed by a method in which a long fibre sheet or woven sheet (e.g. of carbon fibre, glass fibre etc.) impregnated with resin (e.g. epoxy resin, polyester resin, phenolic resin, **polysulphone** resin, polyethersulphone resin, etc.) is laminated by biasing at a fixed angle heated, and then pressed or a cylindrical fibre bundle of braided fabric or string impregnated with a resin is laminated in a **spirally** stepped form or provided with an undulated surface, heated, and then pressed.

The gear can be cut or drilled without cracking, delaminating etc. and can withstand severe conditions of high speed, high load, and high temperature without emitting noise. The gear can be mfd. at low cost and can be effectively used in machinery of various kinds.

L52 ANSWER 35 OF 53 WPIDS COPYRIGHT 2005 THE THOMSON CORP on STN DUPLICATE 17

ACCESSION NUMBER: 1982-36201E [18] WPIDS  
 TITLE: Bent pipe mfr. with exterior coated by reinforcing layer - formed by prepreg. of glass or carbon fibre cloth impregnated with phenol or polyester resin.  
 DERWENT CLASS: A32  
 PATENT ASSIGNEE(S): (SHIM) SHIMIZU PHARM IND CO LTD  
 COUNTRY COUNT: 1  
 PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
JP 57051424	A	19820326	(198218)*		4

PRIORITY APPLN. INFO: JP 1980-114512 19800818  
 ED 19930801  
 AN 1982-36201E [18] WPIDS  
 AB JP 57051424 A UPAB: 19930915

The prepreg (2) is wound round the thermoplastic resin or metallic pipe (1) with several turns, and cellophane tape (3) is **spirally** wound round the pipe (1) to press the prepreg (2). Then, the pipe (1) is bent along the bending mould (4) and is treated with heat. Finally the cellophane tape (3) is removed from the prepreg layer.

The prepreg (2) is formed by impregnating the glass or carbon fibre cloth with the phenol or polyester resin. The reinforcing layer is formed on the bent pipe uniformly. The strength of the bent pipe is improved.

L52 ANSWER 36 OF 53 WPIDS COPYRIGHT 2005 THE THOMSON CORP on STN DUPLICATE  
18

ACCESSION NUMBER: 1981-16708D [10] WPIDS  
TITLE: Clutch facing mfr. - by passing asbestos fibre web through aqueous binder solution, drying impregnating with phenolic resin and rubber latex, etc..  
DERWENT CLASS: A88 L02 Q63  
PATENT ASSIGNEE(S): (KASU-I) KASUGA E  
COUNTRY COUNT: 1  
PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
JP 56005776	B	19810206	(198110)*		
JP 51148142	A	19761220	(198110)		

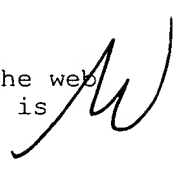
PRIORITY APPLN. INFO: JP 1975-71436 19750614; JP  
1976-110165 19690409

ED 19930801

AN 1981-16708D [10] WPIDS

AB JP 81005776 B UPAB: 19930915

Method comprises forming asbestos fibres into a web using a combing machine, passing the web through aqueous binder soln, drying the web, impregnating the web with phenolic resin solution and rubber latex. The web is cut into tapes, metal wire knitted around tapes, wire-covered tape is placed on an uncovered tape. The composite tape is **wound spirally** into a disc, and heat and pressure applied to the disc.  
(J51148142)



L52 ANSWER 37 OF 53 WPIDS COPYRIGHT 2005 THE THOMSON CORP on STN DUPLICATE  
19

ACCESSION NUMBER: 1980-20170C [11] WPIDS  
TITLE: Paint roller - with cover of open web of continuous crinkled coarse polymer filaments bonded at contact points.  
DERWENT CLASS: A88 P42  
INVENTOR(S): JANSSEN, R I  
PATENT ASSIGNEE(S): (PADC-N) PADCO INC  
COUNTRY COUNT: 2  
PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
US 4191792	A	19800304	(198011)*		
CA 1102740	A	19810609	(198127)		
CA 1195291	A	19851015	(198546)		

PRIORITY APPLN. INFO: US 1978-955918 19781030

ED 19930730

AN 1980-20170C [11] WPIDS

AB US 4191792 A UPAB: 19930902

A roller has a cover bonded to a cylindrical core and consisting of an open web of interengaged continuous crinkled resilient polymer coarse filaments coated to bond them permanently together where they touch, to form open loops and interstitial open areas.

The cover inner surface has a higher concentration of filaments than the outer surface and is pref. bonded to the core by a two-part epoxy resin. The core is pref. a phenolic resin impregnated paper tube and the filaments are of thermoplastics. The cover is pref. **wound spirally** onto the core with the turns edge-to-edge, to cover the entire surface.

L52 ANSWER 38 OF 53 WPIDS COPYRIGHT 2005 THE THOMSON CORP on STN  
 ACCESSION NUMBER: 1974-33932V [18] WPIDS  
 TITLE: Synthetic caviar - of gelled particles of protein solution treated with vegetable tanning agent.  
 DERWENT CLASS: D12  
 PATENT ASSIGNEE(S): (HETE-N) INST ELEMENTOORGANICHESK  
 COUNTRY COUNT: 1  
 PATENT INFORMATION:

PATENT NO	KIND DATE	WEEK	LA	PG
NL 141769	B	19740416 (197418)*		

PRIORITY APPLN. INFO: NL 1967-127 19670104

ED 19930728

AN 1974-33932V [18] WPIDS

AB NL 141769 B UPAB: 19930831

Product is made by (1) mixing a solution or suspension of edible proteins with gelatine, (2) adding the mixture dropwise to a **water** -immiscible solvent (e.g. a vegetable or mineral oil) of which at least the lower layers are below the melting point of the gelled particles, (3) washing the resulting gel droplets with **water** and (4) treating the particles with an aqueous **extract** of a vegetable **tanning** agent (e.g. tea **extract**). The **tanning** treatment forms a **membrane** on the surface of the particles which thus more closely resemble the natural product.

L52 ANSWER 39 OF 53, HCAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 1959:128253 HCAPLUS

DOCUMENT NUMBER: 53:128253

ORIGINAL REFERENCE NO.: 53:23023e-g

TITLE: Rapid and effective method of **extracting tanning** substances from vegetable materials

AUTHOR(S): Goncharov, S. V.

SOURCE: Aptechnoe Delo (1958), 7(No. 4), 54-8

CODEN: APDEAW; ISSN: 0430-0947

DOCUMENT TYPE: Journal

LANGUAGE: Unavailable

ED Entered STN: 22 Apr 2001

AB Air-dried material (1.2 g.) containing 20-10% of tannin is placed in a 35-mm. diameter beaker with perforated bottom, topped with 2 gauze disks and one of filter paper of medium texture with a slit in the middle. The beaker is suspended from a rubber stopper through which passes the inner tube of a condenser and which is stuck into a wide-mouth flask containing **water** or other solvent. The flask is heated on an elec. plate or **water** bath when low-boiling solvents are used. In case of thermolabile tanning

substances the receiving flask is replaced after 10-20 min. by another with fresh solvent. The end of the extraction is ascertained by testing the **percolate** with a paper strip treated with 1.5% solution of ferric ammonium salt and air-dried. A violet, deep blue, or green color indicates the presence of still considerable amts. of tannin. The intensity of the stain permits an evaluation of the progress of extraction; it was found to be more sensitive than titration with 0.02N KMnO<sub>4</sub> or testing with a 1% solution of gelatin. The exts. are made up to constant volume and tannin is determined by conventional methods. mw

L52 ANSWER 40 OF 53 HCAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 1959:106081 HCAPLUS  
DOCUMENT NUMBER: 53:106081  
ORIGINAL REFERENCE NO.: 53:19055d-f  
TITLE: The investigation of certain details of the extraction process of cortex viburni and quantitative determination of **tanning** substances in the **extract**  
AUTHOR(S): Brezhneva, N. M.  
CORPORATE SOURCE: Pharm. Inst., Moscow  
SOURCE: Aptekhnoe Delo (1958), 7(No. 3), 23-6  
CODEN: APDEAW; ISSN: 0430-0947  
DOCUMENT TYPE: Journal  
LANGUAGE: Unavailable

ED Entered STN: 22 Apr 2001

AB Proper degree of trituration helps to improve the quality of the product. Extraction can be simplified by **percolation** without previous maceration. Quantitative determination of **tanning** substances by diluting the **extract** and titrating with KMnO<sub>4</sub> solution offers difficulties due to the formation of a voluminous precipitate. This can be avoided by diluting of the extract with 4 vols. of 70% alcohol. Part of the diluted extract is transferred to a dry or alcohol-rinsed flask, 750 cc., and **water** added rapidly. This prevents formation of a precipitate. mw

L52 ANSWER 41 OF 53 HCAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 1954:41001 HCAPLUS  
DOCUMENT NUMBER: 48:41001  
ORIGINAL REFERENCE NO.: 48:7325c-e  
TITLE: Interaction of vegetable tannins with **polyamides** as proof of the dominant function of the peptide bond of collagen for its binding of tannins  
AUTHOR(S): Gustavson, K. H.  
CORPORATE SOURCE: Garverinaringens Forskningsinst., Stockholm  
SOURCE: Journal of Polymer Science (1954), 12, 317-24  
CODEN: JPSCAU; ISSN: 0022-3832  
DOCUMENT TYPE: Journal  
LANGUAGE: Unavailable

ED Entered STN: 22 Apr 2001

AB cf. C.A. 47, 5149d. The irreversible fixation of wattle tannin (I) was studied with collagen (II), methylated II, and hydrated **polyamide** as a function of pH. The titration curve of I showed that extremely weak acid groups were present and the first buffering effect occurred at pH greater than 8. The **polyamide** bound I irreversibly, proving that the peptide linkages function as binding sites. The fixation was independent of pH in the range of 2 to 8 by **polyamide** and II in solns. containing 0.5M NaCl which prevents swelling. Intact II showed fixation of I which was pH dependent, and this fixation was related to the degree of swelling of II. This was ascribed to the availability of

peptide bonds. Methylated II fixed large amts. of I in the pH range 2-7 owing to the fact that a major part of the H-bonding sites were set free to react. The decrease of fixation at pH greater than 8 was ascribed to the ionization of the phenolic groups of I with fewer H-bonding sites available. It was concluded that the phenolic groups of I provided points of attachment with peptide groups of adjacent protein chains and explained the stabilization of the protein lattice by the tanning agent. m

L52 ANSWER 42 OF 53 HCAPLUS COPYRIGHT 2005 ACS on STN DUPLICATE 20

ACCESSION NUMBER: 1951:20691 HCAPLUS  
DOCUMENT NUMBER: 45:20691  
ORIGINAL REFERENCE NO.: 45:3632g-h  
TITLE: **Extraction of tannin** from sumac leaf  
INVENTOR(S): Carrara, Gino  
DOCUMENT TYPE: Patent  
LANGUAGE: Unavailable  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2537510		19510109	US	

ED Entered STN: 22 Apr 2001  
AB Sumac (*Rhus coriaria*) leaves may be extracted to yield a suitable substitute for gallotannin from nutgalls for use by the ink, dye, and wine industries. The leaves are **percolated** with **water**, the **percolate** clarified by chilling and centrifugation, after which the percolate is concentrated and extracted with AcOEt. The extract is dried on a cylinder drier at 120° to yield a light-weight powder which contains 86-88% tannin of a yellow hue. m

L52 ANSWER 43 OF 53 HCAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 1950:14028 HCAPLUS  
DOCUMENT NUMBER: 44:14028  
ORIGINAL REFERENCE NO.: 44:2781h-i, 2782a-f  
TITLE: Results and problems in the realm of synthetic **tannins**  
AUTHOR(S): Kuntzel, A.  
SOURCE: Colloquiumsber. Inst. Gerbereichem. tech. Hochschule Darmstadt (1949), No. 5, 3-24  
DOCUMENT TYPE: Journal  
LANGUAGE: Unavailable  
ED Entered STN: 22 Apr 2001  
AB Organic **tanning** materials are classified as (I) aliphatic, (A) paraffin chain compds. (1) natural fats, (2) fat acid sulfonates, (3) paraffin sulfochlorides ("Immergan"), (B) polymer group (resin tannage), (1) polymethylol bases, (2) di-isocyanates ("Gerbstoff I"), (II) aromatic, (A) without phenolic groups, (1) condensed naphthalene sulfonic acids ("Tanigan F"), (2) **polysulfonamides** ("Tanigan Supra LL"), (B) with phenolic groups, (1) phenolic syntans, (2) lignin derivs., (3) vegetable **tannin**. All but IA(1), IIB(2), and IIB(3) are synthetic **tannins** in a broad sense. The IB and IIA groups have no natural analogs with **tanning** power. The IIA group proves that phenolic OH groups are not essential; aromatic **tanning** agents contain a plurality of benzene rings, activated by substituents of which OH is most important but not unique. Members of IB are polybases, and form ppts. with the poly-acids of II. The principal difference

between IIB(1) and IIB(3) is that the latter are built up from poly-phenols and former from mono-phenols because simple polyphenols are not economically available. The type-substance of IIB(1) is phenolnovolak (III), (HO)C6H4CH2C6H2R2OH (R = H, Me, or another substituted benzene ring). III is insol. but can be used for **tanning** from EtOH or when emulsified ("Tanigan Extra B"). Solubilization of III is accomplished by introducing SO3H, by treating either with HCHO-bisulfite compound or with concentrated H2SO4. The former gives SO3H in a side chain;

the

latter give SO3H attached to the ring. p-Hydroxyphenyl sulfonic acid is neither a **tanning** agent nor an emulsifier for III, while p-hydroxybenzyl sulfonic acid is both, and is the smallest organic mol. (except HCHO) with **tanning** properties. **Tanning** power is not confined to particles of colloidal size. The nature and arrangement of substituents det. **tanning** power. The concept of "depsophore" and "auxodeps" groups has not been **fruitful**. The development of IIB(1) from Stiasny's Neradol is traced. The chief difference is the higher ratio of PhOH to SO3H in IIB(2), - about 3:1 compared to 1:1 for Neradol. Sulfonated III can be prepared by sulfonation of PhOH, followed by condensation with HCHO, or by condensation followed by sulfonation. In the first method, PhOH:H2SO4 cannot be higher than 1.25:1, otherwise the subsequent condensation yields insol. reaction products of HCHO and unsulfonated PhOH. In the second method PhOH:H2SO4 can be raised to 2:1. With still less H2SO4 the product has limited solubility but can be stabilized by a second condensation with HCHO. If free PhOH is removed from the condensation product before sulfonating, PhOH:H2SO4 can be raised to 4:1, or even 10:1 for a condensation product of 1 PhOH:0.8 HCHO. This condensation product is so viscous that sulfonation is carried out in Ac2O solution. This procedure is used in manufacturing Tanigan Extra B.

The

AcOH helps buffer the product. The absence from syntans of nontannins of the type present in vegetable **tannins** necessitates the presence of organic acids to insure good penetration of collagen fibers.

L52 ANSWER 44 OF 53 HCAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 1938:49576 HCAPLUS  
DOCUMENT NUMBER: 32:49576  
ORIGINAL REFERENCE NO.: 32:6903g-h  
TITLE: **Extraction of tanning and dye**  
woods, etc.  
INVENTOR(S): Scholler, Heinrich  
DOCUMENT TYPE: Patent  
LANGUAGE: Unavailable  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2123212		19380712	US	

ED Entered STN: 16 Dec 2001  
AB Apparatus is described, and a process for the extraction of oak chips or various other materials with **water** or organic solvents comprising intermittently and rapidly flowing individual batches of an extraction medium through vegetable material in an extractor, each successive batch of extraction medium being smaller than that corresponding to the volume of the vegetable material being treated and the temperature thereof being lower than that of the vegetable material, withdrawing the medium containing the extractives substantially immediately after the **percolation** of the vegetable



material, and leaving the vegetable material after each batch of extraction medium has flowed therethrough in a moist state surrounded by gases and vapors. *M*

L52 ANSWER 45 OF 53 HCAPLUS COPYRIGHT 2005 ACS on STN DUPLICATE 21

ACCESSION NUMBER: 1925:520 HCAPLUS  
DOCUMENT NUMBER: 19:520  
ORIGINAL REFERENCE NO.: 19:88i,89a-b  
TITLE: Solubility of **tannins** and their **extraction** from plants  
AUTHOR(S): Picard, F.  
SOURCE: Compt. rend. (1924), 179, 480-3  
DOCUMENT TYPE: Journal  
LANGUAGE: Unavailable

ED Entered STN: 16 Dec 2001

AB (1) Each of 20 weighed samples of grapevine twigs was extracted with Et2O in a Soxhlet apparatus, the Et2O containing the tannins was distilled off, the residue was

taken up with boiling water and the quantity of tannin in the latter solution was determined (2) The powder upon which the Et2O extract had been made was extracted

in a **percolator** with boiling water and the tannin determined in the extract (3) A fresh weighed sample of each of the original powders was extracted with boiling water and the tannin determined as in (1) and

(2) by the method of Boudet and Jean. The results proved that neither ordinary Et2O alone nor water alone removes all of the tannin. (Cf. Lloyd, C. A. 15, 3864; 16, 3933; Clark and Andrews, C. A. 16, 172.) *M*

L52 ANSWER 46 OF 53 HCAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 1916:10836 HCAPLUS  
DOCUMENT NUMBER: 10:10836  
ORIGINAL REFERENCE NO.: 10:2052b-f  
TITLE: Manufacture of **tannin extract**  
SOURCE: Leather & Shoes (1916), 51(No. 19;No. 23), 25-6;25  
CODEN: LESHAO; ISSN: 0069-2387  
DOCUMENT TYPE: Journal  
LANGUAGE: Unavailable

ED Entered STN: 16 Dec 2001

AB The descriptive matter of the article is based upon data obtained by the Forest Service, U. S. Dept. Agriculture, from 14 concerns mfg. tannin exts., their total daily capacity being 692 cords. Chestnut wood and the bark of chestnut oak, black oak, and hemlock trees are used chiefly, the distribution of wood being as follows: Chestnut wood, 148,367 cords; chestnut-oak bark, 12,161 tons; black-oak bark, 3,415 tons; hemlock bark, 1,660 tons. In dealing with the manufacture of chestnut extract the grinding

of the wood and the 3 methods of extraction, namely the open diffusion, the decoction, and the percolation methods, are described. The extract is concentrated in quadruple-effect vacuum pans so modified that each effect becomes in succession 1, 2, 3, 4, thus overcoming the deposit of solid matter which occurs only from the second effect to the last effect. The temperature of the **steam** and the vacuum for each effect is given. The concentrated extract is then pumped into settling tanks and finally decanted

for shipment into tank cars of steel construction, having on the inside surface a protective coating made from red lead and linseed oil. One cord of chestnut wood yields from 700 to 900 lbs. of 25 % tannin. The cost of chestnut wood per cord varies from \$4.82 to \$5.04 and the operating

*Extraction  
Percolation  
Concentration  
=*

expenses per cord vary from \$2.75 to \$3.00. During 1913 the average price obtained for the extract was about 4.6 cents per unit of tannin. On this basis the productive yield was from \$8 to \$9.50 per cord with a cost of \$7.57 to \$8.04. Figures are given for the cost of original installation of a modern plant operating in chestnut wood. Tannin extract from bark is treated briefly. Chestnut-oak bark yields 800 lbs. of 25% extract per ton and black-oak yields 600 lbs. of 45% B. act. e extract. The status and outlook of the extract industry in the U. S. with import and export figures for 1914 and 1915 are given. *mw*

L52 ANSWER 47 OF 53 HCAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 1916:15310 HCAPLUS

DOCUMENT NUMBER: 10:15310

ORIGINAL REFERENCE NO.: 10:2812f-h

TITLE: **Extraction of tanning materials**  
and determination of **water**-soluble matter in  
leather

AUTHOR(S): Nihoul, E.

SOURCE: Journal of the Society of Chemical Industry, London  
(1915), 34, 1020

CODEN: JSCIAN; ISSN: 0368-4075

DOCUMENT TYPE: Journal

LANGUAGE: Unavailable

ED Entered STN: 16 Dec 2001

AB The use of pressure in extraction is condemned both on practical and on theoretical grounds. In both the Procter and the Koch methods the soluble matter is more quickly extracted without pressure and non-tans are more easily extracted than tannins. Correct results require more than the 1. l. of H<sub>2</sub>O, or more time for the 1. l. to **percolate** than recommended by Paessler, or gentle heating during **percolation**. The height of the column of material to be extracted should be 1 1/2 times the diameter, and Procter's extraction apparatus should be connected with a constant feed device for continuous operation. *mw*

L52 ANSWER 48 OF 53 HCAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 1916:15309 HCAPLUS

DOCUMENT NUMBER: 10:15309

ORIGINAL REFERENCE NO.: 10:2812f-h

TITLE: **Extraction of tanning materials**  
and determination of **water**-soluble matter in  
leather

AUTHOR(S): Nihoul, E.

SOURCE: Collegium (Darmstadt) (1915) 233-6

CODEN: COLLA6

DOCUMENT TYPE: Journal

LANGUAGE: Unavailable

ED Entered STN: 16 Dec 2001

AB The use of pressure in extraction is condemned both on practical and on theoretical grounds. In both the Procter and the Koch methods the soluble matter is more quickly extracted without pressure and non-tans are more easily extracted than tannins. Correct results require more than the 1. l. of H<sub>2</sub>O, or more time for the 1. l. to **percolate** than recommended by Paessler, or gentle heating during **percolation**. The height of the column of material to be extracted should be 1 1/2 times the diameter, and Procter's extraction apparatus should be connected with a constant feed device for continuous operation. *mw Concentration*

L52 ANSWER 49 OF 53 HCAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 1913:15999 HCAPLUS

DOCUMENT NUMBER: 7:15999

ORIGINAL REFERENCE NO.: 7:2322e-h

TITLE: The Principles of **Tanning Extract**  
Manufacture. A Lecture before the Students of the  
Tanning and Applied Leather Chemistry Courses at Pratt  
Institute

AUTHOR(S): Kerr, Geo. A.

SOURCE: Shoe and Leather Reporter (1913), 109;110(No. 11;No.  
2), 67-70;53-5

CODEN: SLREAY; ISSN: 0096-9257

DOCUMENT TYPE: Journal

LANGUAGE: Unavailable

ED Entered STN: 16 Dec 2001

AB The first step in extract manufacture is reducing the cord wood in the best  
manner

possible to permit the ready dissolving and removal of the **water**  
-soluble extractive matter. First the wood is chipped at an angle or  
directly across the end by means of sharp knives. The capacity of the  
disk chipper is much less than that of the "hog" but it gives a cleaner  
cut and less dust. A secondary reduction machine makes the chips uniform  
in size. The process of extraction comes next. In America decoction,  
open diffusion, or **percolation**, all open systems, are used. In  
Europe the superior diffusion method is used. The crude liquors are then  
refined and decolorized. In some cases precipitation in large receiving tanks

or

rough filtration is sufficient but the best decolorized exts. are produced  
by the use of blood albumin. ~~X~~Concentrate is accomplished by boiling in vacuo.  
If a powdered product is desired, the liquid extract is dried by a film  
drier. Heat has a deleterious effect upon the powdered extract

L52 ANSWER 50 OF 53 HCAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 1913:16000 HCAPLUS

DOCUMENT NUMBER: 7:16000

ORIGINAL REFERENCE NO.: 7:2322e-h

TITLE: The Principles of **Tanning Extract**  
Manufacture. A Lecture before the Students of the  
Tanning and Applied Leather Chemistry Courses at Pratt  
Institute

AUTHOR(S): Kerr, Geo. A.

SOURCE: Leather & Shoes (1913), 45(Nos. 14 and 15)

CODEN: LESHAO; ISSN: 0069-2387

DOCUMENT TYPE: Journal

LANGUAGE: Unavailable

ED Entered STN: 16 Dec 2001

AB The first step in extract manufacture is reducing the cord wood in the best  
manner

possible to permit the ready dissolving and removal of the **water**  
-soluble extractive matter. First the wood is chipped at an angle or  
directly across the end by means of sharp knives. The capacity of the  
disk chipper is much less than that of the "hog" but it gives a cleaner  
cut and less dust. A secondary reduction machine makes the chips uniform  
in size. The process of extraction comes next. In America decoction,  
open diffusion, or **percolation**, all open systems, are used. In  
Europe the superior diffusion method is used. The crude liquors are then  
refined and decolorized. In some cases precipitation in large receiving tanks

or

rough filtration is sufficient but the best decolorized exts. are produced

by the use of blood albumin. Concentrate is accomplished by boiling in vacuo. If a powdered product is desired, the liquid extract is dried by a film drier. Heat has a deleterious effect upon the powdered extract

L52 ANSWER 51 OF 53 HCAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 1908:13284 HCAPLUS  
DOCUMENT NUMBER: 2:13284  
ORIGINAL REFERENCE NO.: 2:2883d-i  
TITLE: Improved Apparatus for the **Extraction** of  
**Tanning** Materials for Analysis  
AUTHOR(S): Sheard, L.  
CORPORATE SOURCE: Lea. Ind. Lab., Univ. Leeds  
SOURCE: Collegium (Darmstadt) (1908), (No. 319), 275-6  
CODEN: COLLA6  
DOCUMENT TYPE: Journal  
LANGUAGE: Unavailable

ED Entered STN: 16 Dec 2001

GI For diagram(s), see printed CA Issue.

AB In order to avoid the constant attention which is required by the Procter extractor, the following self-feeding device was designed. A vessel, A, contains **water** to be used in extraction, which before entering the extractor passes through a coil of glass tubing B, which is placed around the extracting vessel on the bottom of the **water** bath, so that the **water** is heated automatically to the temperature of the bath. The rate of flow is regulated by a screw clip, so that it drops upon the material to be extracted at the same speed as the tannin solution **percolates**. The regulation is facilitated by having the delivery tubes, C and C1, of the same bore at their outlet, which is easily obtained by drawing out a piece of tube of the requisite size and cutting in the middle. The supply vessel A on the diagram is usually a 40 oz. bottle with a glass siphon passing through the cork, but of course a tubulated bottle with a pinchcock may also be employed.

L52 ANSWER 52 OF 53 HCAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 1908:12554 HCAPLUS  
DOCUMENT NUMBER: 2:12554  
ORIGINAL REFERENCE NO.: 2:2743d-i, 2744a-i, 2745a-i, 2746a-e  
TITLE: Hide Powder Methods  
AUTHOR(S): Westenfelder, R. D.  
SOURCE: Leather & Shoes (1908), 25, 12-20  
CODEN: LESHAO; ISSN: 0069-2387  
DOCUMENT TYPE: Journal  
LANGUAGE: English

ED Entered STN: 16 Dec 2001

AB Simply washing hide powder with **water** does not make it of uniform absorptive power. The idea of chroming hide powder, first proposed by Berthold Weiss, and later more fully developed by the Association Official Agricultural Chemists, and the American Leather Chemists' Association, at times gave uniform results, and at other times did not. The cause for this lack of agreement arises from the fact that the powder is washed with tap **water** of varying degrees of temporary hardness, and only within the past year has this fact been recognized. Distilled **water**- "a neutral substance"-should always be used, since it has been shown that alkaline hide powders do not absorb all of the tannin, and ground sole leather is almost stripped of tannin by treatment with as little as 15 drops of 10% ammonia **water** per gallon of **water**. The author sets forth "an ideal method," which has been used by him since about 1896. Neither the condition of the raw hide nor the parts of same, "shank, belly or butt," seem to influence the

uniformity of results when treated by this method. Briefly stated, the method is as follows: Into a three gallon crock, put 300 g. of hide powder and add **water** until crock is one-half full. Now add 20 g. of bisulphite of soda and 25 cc. of 66° sulphuric acid, and stir thoroughly. Wash, by decantation, until nearly acid-free, and add solution of sulphate of aluminum, stir thoroughly and neutralize with dilute ammonia **water** until slightly alkaline. Wash free from sulphates and soluble hide by siphoning through inverted funnel with cotton plug in stem. During the washing the powder should frequently be stirred with fresh portions of distilled **water** and allowed to settle. After washing, the powder is squeezed out by hand, finely broken up, and after one hour, covered with **water** containing 10 drops of glacial acetic acid per liter. Here it will keep for 7 or 8 days. Before use for analysis the required amount is put into a funnel with cotton plug in stem, and washed with successive 200-300 cc. portions of distilled **water** until free from sulphates and soluble hide. Since it is the acid radicle in chromed powders which gives the uniform absorptive power, this power decreases with age and basicity of same; hence the failure of dry chromed powders and those squeezed below a certain moisture content. The author's method claims, at all times, to give a uniform powder, even from inferior quality of hide. Sulphate of alumina is added simply to make the powder squeeze drier, and in no way influences the absorptive power. By using powder prepared as above, no caramelization of non-tannin residues takes place as the acid is neutralized with ammonia. To obtain ground hide powder, only the shanks of the hides are used. These are cut off in the beam house, flesh-cleaned, and hung up until bone-dry. They are then soaked in cold **water**, 10 to 12 hours, cut into pieces one to two inches square, dried, chopped fine with Brecht cleaver chopper, and finally ground in an ordinary grain or bone mill. Both strictly granular, and extremely powdery hide powders, should be avoided, the best results being obtained from those which are semi-granular. Our meagre knowledge of tannins and non-tannins does not permit the statement that one is a tanning agent and the other not. "Flasiewetz has suggested that tannins should be regarded as gummides or dextrides, and the formation of reducing sugars-by the action of acids-is due to this action on gums." Fairly strong non-tannin solution, when poured into strong alcohol, gives products resembling dextrin. Due to action of excessive acidity, some tannery liquors become ropy and even jelly, which extremely colloidal nature of the non-tannins stops the tanning process, except by those tannins of a more distinctly sub-crystalline nature. The same non-tanning effect has been observed, when the colorless non-tannin filtrate, from a weak tan solution, is faintly acidified with sulphuric acid and repeatedly returned through the hide powder in the funnel. The final filtrate is no longer colorless, the acid having removed matter only feebly held by the hide. The author believes that, under normal conditions, some of the so-called non-tannins enter into combination with hide matter to form true leather substance. To what extent this takes place in practice is not definitely known. The author prepared a quantity of non-tannins from chestnut liquor, made with distilled **water**. This was done by completely detannizing said liquors by repeated treatments with hide powder, concentrating filtrate in vacuo, and finally drying on **water** bath. The resulting mass was then powdered, dissolved, and analyzed for non-tannins, "when it was found that 50% of the total matter had been absorbed by the hide." The conclusion is that the non-tannins before concentration contained tanning substances not indicated by the gelatine test. The redissolving of chromium hydroxide, precipitated by ammonia, in the presence of sugar, and some organic acids, is given as a parallel phenomenon. Non-tannins strongly influence the tanno-gelatine precipitate. A tannin solution so weak as to give only a turbidity with

gelatine, gives a flocculent precipitate upon the addition of oak wood non-tannins. Also a fresh tan solution with basic chrome salts, gives at first only turbidity, a precipitate not forming for several days. Gallic acid has an action similar to that observed with oak-wood non-tannins. Instances are given where the "filter bell method" gives highly colored **percolates**, containing both soluble hide and tannin. Some tanning materials, upon continued extraction with boiling water, show persistent test with gelatine, but upon concentration of the liquid, these tannin-like substances precipitate, become insoluble, and inactive to gelatine. These insolubles may be considered either as anhydrides of the tannins, or of "some of the constituents of the so-called non-tannins," in the latter case, "it might be considered in the light of gallo-tannic acid, as being first anhydride of gallic acid." Or, the non-tannins may be likened to purified and dialyzed caramel which has both "soluble and insoluble modification." "The latter has its solubility restored by the action of alkalies, followed by that of acetic acid and subsequent dialysis" (Watts's Diet. Chemical). In light of these statements, hide may be considered as having the power to cause this insoluble modification, with the results that the non-tannins become fixed in its fibers to form pure leather substance. Considering the insolubles as strictly non-tannin in nature, the statement that all are anhydrides of tannins does not hold good. If this is the case, the shaking of unfiltered tan solutions with hide powder might cause an error in the non-tannin figure, since the insolubles would be more soluble in detannized solution. "The fixation of the non-tannins by the hide most probably accounts for the differences in the degree of tannage, as obtained with various tanning substances." The part which the nontannins play in the formation of leather is also indicated in the analysis of the leather itself, when it develops that the ratio of tannins to non-tannins in partially tanned leather, is as well contained as in that which is fully tanned. The degree to which this combination takes place is not determinable in the laboratory, and in practice, is influenced by liquor conditions, methods of handling, etc., or even by the nature of the non-tannins. Because of the extremely slow diffusion of colloids, the shaking or stirring in non-tannin determinations must be thoroughly done, otherwise, the dilution factor for the **water** in the wet hide does not give correct results, since equilibrium has not been established. The shaking or stirring should not stop the moment it ceases to react with gelatine, but should continue until the dilution is complete. This condition is not brought about by the milk shaker because the agitation is not vigorous enough to cause perfect diffusion, and the non-tannins are practically held out. The time of agitation should not be limited, as some foamy liquids, especially hemlock, require more time for complete detannization. To replace the milk shaker a centrifugal stirrer was devised, and has been used for years with excellent results. To 20 g. of squeezed hide powder, in stirring bottle, add 200 cc. of tan solution, 5 drops of glacial acetic acid, and stir 5 minutes or until foam disappears. Now add 20 g. more hide powder and proceed to stir as above. Pour the whole magma into funnel with cotton plug in stem, let drain, gently pack hide powder in funnel, and return **percolate** until clear. In obstinate cases, liquor is squeezed from the hide, and filtered through asbestos in carbon filter. Acetic acid is added to the tan solution to promote more complete absorption of the tanning substances. This method is preferable to that of trying to regulate the acidity of chrome powders, since the amount added is the same in every case, and results in uniformity. Non-tannin residues are not visibly changed by its use, and its presence is especially necessary for complete detannization of bisulphited extracts and alkaline tannates. Furthermore, it accords with tannery practice. Acetic acid lessens the absorption of gallic acid,

while salts have the opposite effect. The author supports the view that the affinity of hide for tanning rather than for non-tanning substances, is selective and physical, depending on the equilibrium established. Reference is made to articles by Gardner and Carter, who have shown that cotton fiber saturated in a 0.5% tannic acid solution will still absorb in a solution 0.2%, the balance being reached at 0.02% where some tannic acid goes back into solution. The absorption is greatly increased in the presence of acetic acid. The assumption is made, therefore, that in the presence of non-tannins, the tanning substances are not all absorbed by one shaking, but only by repeated **percolations** through hide powder. This is especially true of the very weak tan solutions where the point of balance is nearly reached. The American Leather Chemists' Association method of squeezing the non-tannin liquor from the hide is in error since those tannins which are not firmly fixed in the hide are squeezed out and react with gelatine in the non-tannin filtrate. The author finds the gelatine test to be "illusory," giving both positive and negative results. Some non-tannin solutions which previously gave no reaction, after heating and standing will give a reaction with gelatine. This may be due to the solvent power of the non-tannins, or of an excess of gelatine, or of both on the tanno-gelatine. With his method, tannins are never found in the non-tan filtrate, and are rarely ever tested for, but with hide powder four or five days old, tests are always made for soluble hide. This test is made with Merck's gallo-tannic acid, and in case of reaction, the filtrate is treated with from 5 to 10 mg. of the above, and **percolated** through the hide powder until clear. 90% of the gallo-tannic acid is absorbed by the hide, the other 10% being a negligible quantity. Tan solutions should be filtered before stirring with the hide powder, since in the detannized liquor, the so-called reds are more soluble than in the original liquor, and leads to an error in the non-tannin figure. The more uniform non-tannin figures by the filter bell method, on materials of the same kind and manufacture, may result from the fact that the insolubles are subjected only to the original liquor. The author uses stronger solutions for analyses than called for by the official methods of the American Leather Chemists' Association, and would use still stronger ones were it not for the difficulty in observing the clarity of the soluble solid filtrates. The following quantities per liter are used: Liquid oak, chestnut and hemlock extracts, 21.5 to 22.0 g.; dry quebracho and mangroves, 8 to 9 g.; liquid quebracho 16 to 18 g.; and other extracts in proportion to give from 0.42 to 0.46 g. of total solids, residues per 50 cc. of solution. Amount of hide powder, 40 g. wet, equivalent to 12 g. dry. Materials for extraction, except spent bark, etc., are taken in such quantities as to yield a solution of the same total solids as given above for extracts. One hundred parts of **water** are taken for 1 part of material, and the **percolates**, which are always collected outside the extraction, are concentrated in vacuo to one-half or one liter as required. Extractions from spent materials are necessarily weaker, and require from 20 to 30 g. of wet hide powder (6 to 9 g. dry) for 200 cc. of solution. For these weak solutions the Lowenthal method may be used with equal accuracy where the results are merely for factory control. In support of his belief that the absorption of non-tanning substances increases in the presence of tannin, the author cites some experiments of Dreaper and Wilson (J. Society Chemical Ind., 1906, 515, et. seq.), which show that the absorption of gallic acid constantly increases as the tannin content of the solution is raised. What is true of gallic acid is also claimed to be true for complex non-tannins, and the opinion is expressed that the absorption of gallic acid by the hide is permanent. The presence of acetic and hydrochloric acids greatly reduces the absorption of gallic acid.

L52 ANSWER 53 OF 53 WPIDS COPYRIGHT 2005 THE THOMSON CORP on STN  
 ACCESSION NUMBER: 1966-20457F [00] WPIDS  
 TITLE: Aqs injectable lespedeza capitata extract-anti.  
 DERWENT CLASS: B00  
 PATENT ASSIGNEE(S): (SOPY) SOPHYMEX  
 COUNTRY COUNT: 4  
 PATENT INFORMATION:

PATENT NO	KIND DATE	WEEK	LA	PG
BE 670550	A	(196800)*		
FR 4858	M	(196801)		
GB 1122650	A	(196801)		
GB 1128372	A	(196801)		
CA 868873	A	(197117)		

PRIORITY APPLN. INFO: FR 1964-990467 19641006

ED 19930727

AN 1966-20457F [00] WPIDS

AB BE 670550 A UPAB: 19930831

Injectable solution of **water**-soluble lyophilised extract of  
 Lespedeza capitata (Michx Legrm).

Anti-hypernitraemic.

Dose:- 10-25 ml/day, intramuscularly or intravenously.

Fresh leaves and stems of Lespedeza capitata are **percolated**  
 with 67-73 deg. alcohol by the National Formulary Method C to  
 give a 20% extract; tincture evaporated to 1/4 volume; made up to  
 full volume with dist. **water**; left 2 hr.; filtered; filtrate  
 treated with 1% aqs. gelatine; left 2 hr.; filtered; filtrate  
 stirred 20 min. with 4% powdered pretanned leather which has been  
 soaked, dried and sterilised at 130 deg.C for 30 min.; filtered;  
 5-7.5 g mannitol and 10-15 g lactose added; filtered; lyophilised  
 to give a 1.7-1.9% extract (on dry weight of plant).

**Extract** comprises flavonoids free from **tannins**.